

DOCUMENT RESUME

ED 195 030

EA 013 123

TITLE Educational Policy and Planning. Goals for Educational Policy in Sweden. A Status Report on Compulsory Schooling and Higher Education.

INSTITUTION Organisation for Economic Cooperation and Development, Paris (France).

PUB DATE 80

NOTE 189p.: With a resume in French.

AVAILABLE FROM OECD Publications and Information Center, Suite 1207, 1750 Pennsylvania Ave., N.W., Washington, DC 20006 (\$8.50)

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.

DESCRIPTORS Academic Achievement: Citizen Participation: *Compulsory Education: *Curriculum: Decentralization: Educational Change: *Educational Objectives: *Educational Policy: Education Work Relationship: Elementary Secondary Education: Equal Education: Equal Opportunities (Jobs): Governance: *Higher Education: Lifelong Learning: School Business Relationship: *School Organization: Vocational Education

IDENTIFIERS *Sweden

ABSTRACT

This paper presents the state of current Swedish educational reform policy by describing the current state of Swedish education in compulsory comprehensive school (grades 1-9) and in higher education. The volume begins with a chapter on the external social factors affecting education. This is followed by chapters offering a general description of the present educational system and an evaluation of the compulsory comprehensive school. As part of the evaluation, the endeavor to achieve equality is examined. The next chapter concentrates on the links between education and society and working life. According to the analysis, the schools have relinquished their role as the major supplier of knowledge about the working world and society, but are expected to oversee student experiences in these areas. The next chapter looks at the reform of basic higher education. Now all types of postsecondary education form a unitary system with regard to planning and resource allocation. The objective of the reform was to design an administrative system for continuous self-renewal of universities and colleges. It is concluded that developments in both compulsory school and higher education reform mean greater decentralization. A summary of the document in French is included. (Author/JM)

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ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT
PARIS 1980

EA 013 123

EDUCATIONAL POLICY AND PLANNING

GOALS FOR EDUCATIONAL POLICY IN SWEDEN

*A Status Report on
Compulsory Schooling and Higher Education*

SUIVI D'UN RÉSUMÉ EN FRANÇAIS



ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT
PARIS 1980

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FOREWORD

This report on compulsory schooling and higher education in Sweden has been prepared by the Ministry of Education and Cultural Affairs in close co-operation with the National Board of Education and the National Board of Universities and Colleges; it incorporates contributions by several educational specialists.

The report being limited in scope does not cover the entire education system nor every aspect within the topics reviewed. It should be treated as a source of factual information and interpretations of current practice.

The views expressed may be regarded as the "official" standpoint on compulsory schooling and higher education. Critical points of view have been taken into consideration.

It is our hope that the report will serve the purpose of giving the OECD examiners a broad basis for conducting their important review of compulsory schooling and higher education in Sweden.*

Stockholm 1979.

* The examiners' report, together with the record of the review meeting held in Paris within the Education Committee on 13 November 1979, will be published subsequently in the series of Reviews of National Policies for Education.

	<u>Page</u>
1 INTRODUCTION	
1.1 <u>The present Educational Review</u>	1
1.2 <u>The Review 1964-1967</u>	1
1.2.1 The Swedish Report	2
1.2.2 The Examiners' Report	3
1.2.3 Relevance of the Examiners' Questions for and Effects of the Review Work on Swedish Educational Policies	4
2 THE EDUCATIONAL SYSTEM IN SOCIETY - PRESENT SITUATION AND FUTURE TRENDS	6
2.1 <u>Introduction</u>	
2.2 <u>The Demographic Development and the Educational System</u>	7
2.3 <u>Trends in Individual Demand for Education</u>	10
2.4 <u>The Relationship between Education and Employment</u>	15
3 DESCRIPTION OF THE PRESENT EDUCATIONAL SYSTEM	19
3.1 <u>Compulsory School</u>	19
3.1.1 Cooperation between Compulsory School and Pre-School	19
3.1.2 Nine Grades	20
3.1.3 Compulsory School Attendance	20
3.1.4 Timetables	20
3.1.5 Marks	23
3.1.6 Special Instruction	24
3.1.7 Native Language Instruction	24
3.1.8 Teachers	25
3.1.9 Financing of the Compulsory School	25
3.2 <u>Upper Secondary School</u>	26
3.2.1 Organization: Lines and Courses	26
3.2.2 Curricula	28
3.2.3 Admission	28
3.2.4 Marks	28
3.2.5 Examinations	29
3.2.6 Teachers	29
3.2.7 Financing	30
3.3 <u>Higher Education</u>	30
3.3.1 Study Organization	30
3.3.2 Admission	31
3.3.3 Administrative Organization	33
3.3.4 Decentralization and Localization	35
3.3.5 Financing and the Allocation of Resources	35
3.3.6 The Follow-up Program	36
3.4 <u>Other Forms of Education</u>	37
3.5 <u>State Study Assistance</u>	39
3.5.1 Student Aid	40
3.5.2 Study Allowances	40
3.5.3 Study Assistance for Adults	41
3.5.4 Study Assistance in Labour Market Training	41
3.6 <u>Study and Vocational Guidance</u>	42
3.6.1 Definitions and Goals	42
3.6.2 Study and Vocational Guidance in Compulsory School and Upper Secondary School	42
3.6.3 Study and Vocational Guidance in Higher Education	44
3.6.4 Study and Vocational Guidance within the Employment Service	45

	<u>Page</u>
4 EVALUATION OF THE COMPULSORY COMPREHENSIVE SCHOOL	47
4.1 <u>Goals for educational policy</u>	47
4.2 <u>Equality through Education</u>	48
4.2.1 Availability	48
4.2.2 Accessibility	49
4.2.3 Freedom of choice	50
4.2.4 Equality through Postponed Organizational Differentiation	51
4.2.5 The Pursuit of Equality through Individualization	54
4.2.6 Effects of the Compulsory School on Equality and Integration between the Sexes and between Social Groups	55
4.3 <u>The Connection between Education and Society and Working life</u>	67
4.3.1 Development of the Connection with Society and Working Life within the Compulsory School	67
4.3.2 Evaluation of Study and Vocational Guidance in the Compulsory School	69
4.4 <u>Participation and Codetermination in Education</u>	73
4.4.1 Administrative Responsibility	73
4.4.2 Parliamentary Decision on Revision of the Internal Working of the school	75
4.4.3 The Influence of Various Groups at Different Levels	78
4.5 <u>Methods of Work and Educational Achievement</u>	80
4.5.1 Methods of Work	81
4.5.1.1 Knowledge by Subject	82
4.5.1.2 Verbal and Abstract Instruction	83
4.5.1.3 Isolated Skill Training	84
4.5.1.4 Content and Language Adapted to the Middle Strata of Society	84
4.5.1.5 The Influence of Pupils on Planning their Work	85
4.5.1.6 Reasons for the Lack of Compliance between the School and the Recommendations and Proposals in the Curriculum	86
4.5.2 Problem Areas in Public Discussion of the School in the 1970s	87
4.5.3 A Revised Method of Working	90
4.5.4 Educational Achievement	94
4.5.4.1 General	94
4.5.4.2 Comparisons between Countries	94
4.5.4.3 Comparisons between Schools within Countries	96
4.5.4.4 Comparisons between Pupils	98
4.5.5 Summary	101
5 THE REFORM OF BASIC HIGHER EDUCATION	104
5.1 <u>The Area of Investigation</u>	104
5.2 <u>The Objectives of the Reform</u>	104
5.3 <u>The Reform Cycle and its Implications for an Evaluation</u>	105
5.4 <u>The Context and Changes in the Contextual Conditions of Higher Education</u>	107
5.4.1 Introduction	107
5.4.2 International Comparisons	108
5.4.3 Intrnational Conditions in terms of Regional Differences and Variations between Sectors of the Economy	108

	<u>Page</u>
5.4.4 Changes over Time in Society at Large	109
5.4.5 Changes in the Career Pattern of Secondary School Students	111
5.4.6 Some Examples of School Reform Effects on Higher Education	112
5.5 <u>The Criterion Problem</u>	114
5.5.1 The Problems of What, When, and Where	114
5.5.2 Specific Reform Goals versus General Objectives of Higher Education	115
5.5.3 Equality	116
5.5.4 Recurrent Education and Student Flow	118
5.5.5 The Criterion Problem in Conclusion	121
5.6 <u>Special Problems and Preliminary Trends</u>	122
5.6.1 The Extended College Concept and the Unitary Model	122
5.6.2 Decentralization and Codetermination	125
5.6.3 Sectoral Planning and Occupational Orientation	128
5.6.4 Geographical Dispersion	131
5.6.5 Admissions Scheme and Enrolment Trends	133
5.7 <u>Concluding Remarks</u>	136
6 REFORM STRATEGIES	137
6.1 <u>Goals for Educational Policy</u>	137
6.2 <u>Educational Policy-Making</u>	137
6.2.1 Origin and Evolution of Reform Ideas	137
6.2.2 The Investigating-by-Commission System	138
6.2.3 The Submission Procedure	140
6.2.4 The Taking of Political Positions	140
6.3 <u>Executive Organizations</u>	143
6.3.1 The National Board of Education	144
6.3.2 The National Board of Universities and Colleges	146
6.4 <u>Educational Research and Development</u>	148
6.5 In-Service Training	153
6.5.1 In-Service Training for Personnel in Compulsory School	153
6.5.2 In-Service Training for Academic Staff	156
6.6 The Rolling Reform	158
7 SUMMARY AND CONCLUDING REMARKS	160
LES OBJECTIFS DE LA POLITIQUE D'EDUCATION EN SUEDE : RESUME ET CONCLUSIONS	167
REFERENCES	178

1 INTRODUCTION

1.1 The Present Educational Review

In October 1977 the OECD was invited to undertake a review of the Swedish educational system with the aim of enabling Sweden to analyze its past, present and proposed educational policies and shedding some light on particular aspects of the system which might be of special interest to an international audience.

The review focuses on two sectors of the educational system, i.e. compulsory school and higher education. The upper secondary school is referred to only when the analysis so requires. The reason for this is two-fold. First, upper secondary education is currently being investigated by a government commission. Secondly, compulsory education and higher education share similarities as to the goals of the reforms implemented in the last couple of years, notably: the pursuit of equality, the need to relate education to everyday life and in particular to working life, and the participation in educational matters by various groups in society.

The aspects which have been chosen to illustrate the above mentioned goals vary between compulsory school and higher education. This is due to the fact that the two forms of education comprise different age groups, and if there is similarity in objectives there are also differences. The recent changes in admission rules and the selection process within higher education are aspects which are closely related to the goal of equality; these aspects are by definition irrelevant as to equality within the compulsory school.

Reform strategies are the means or process by which major reforms are implemented and are interesting on their own account. But we have also wanted to look at the impact of reforms on compulsory schooling and higher education. The chapters on evaluation of these two levels of education constitute two different attempts to answer the question of how successful Sweden is in achieving the goals that it has set for its educational policies.

1.2 The Review 1964-1967

Swedish educational policy was examined by the OECD during the years 1964-67. The examiners visited Sweden in 1966 from June 6 to 10. A first national report was written in 1964 and a more detailed report with OECD participation in 1965-66.¹⁾ The examiners report was finished in December 1966 and the "Confrontation Meeting" took place in February 1967.

¹⁾ Educational Policy and Planning, Sweden. OECD, Paris, 1967.

1.2.1 The Swedish Report

The main purpose of the whole review was to disseminate information to other OECD countries about the Swedish educational system and its planning methods. At the time Sweden was considered a "lead-country" in educational policies. This statement is substantiated by the outline of the Swedish report. As a whole, this report gave a very detailed account of the Swedish education system and planning but dealt relatively little with specific problems in the educational sector. The report also set out some problems for the future, e.g. the need to develop adult education, the need for and possibilities of rationalization in the educational process and the particular difficulties of training researchers that the mounting numbers of students at the doctorate level at that time had brought about.

The concept of rolling reform was discussed as a central notion in the planning of change in the Swedish educational system. This concept was contrasted with the former major way of achieving change within the Swedish educational system, i.e. the setting up of ad hoc committees. More specifically, it was pointed out that the introduction of rolling reform would result in self-generating change within the educational system through continuous changes in curricula, teaching aids, teaching methods, etc.

The objective of a system of rolling reform was to create a system that would respond flexibly to the shifting demands of individual consumers and of society at large, particularly the demands of working life. In this new system, change at different levels would occur more smoothly and rapidly than had been possible in a system built on change mainly through ad hoc committees, which had usually had only one limited part of the educational system as their target for investigation and had often deliberated during many years, sometimes for almost a decade.

A system of rolling reform, it was argued, would better correspond to one of the stated goals of educational policies i.e. to make the educational system more flexible. Apart from this, a rolling reform system would also contribute to productivity within the educational sector and consequently to productivity in the economy at large.

Research and development were regarded as vital components in a system of rolling reform. Consequently, it was necessary to reinforce the administrative bodies responsible for education, the National Board of Education and the Office of the Chancellor of the Universities. Within these bodies new facilities were created, including research and development departments.

It should be pointed out that the switch to a system of rolling reform was not intended to make the ad hoc committees disappear forever; rather, the two methods of change would be complementary. Rolling reform activities would possibly contribute to a lessening of the number of committees and the scope of their work.

1.2.2 The Examiners' report

A specific area of concern to the examiners was the Swedish educational planning process. They expressed the fear that forces external to the educational establishment which were of vital importance for the integration of the educational sector with society at large might cease to have influence. They also raised such questions as: how would future ad hoc committees be able to play an important role when confronted with the "technical complexities, gradualism and comprehensiveness of rolling reform"? How were the rolling reform activities to be implemented? Was there a risk that planning and research would become too centralized and thus controlled by the centralized bodies.

The examiners also identified specific problems at each educational level. They drew attention to the very insignificant resources devoted to pre-school programmes; insignificant both in comparison with other countries and in view of the evidence accumulated in several countries about the importance of pre-school compensatory programmes for socio-economically disadvantaged children.

Another pertinent question, also related to the issue of equality was the relationship between the 9th year curriculum choices and the separation of students into the major branches of the upper secondary level on the one hand and socio-economic factors on the other. The examiners pointed to the risk that the 2-year continuation school (fackskola) would become the main alternative for lower ability students and/or students from lower socio-economic classes.

The examiners raised the question whether performance criteria and grade requirements for entrance to the various secondary branches would be necessary in the long run. They asked to what extent the development of past and current reforms was leading to a complete integration of the various forms of education at the upper secondary level.

The role of teachers and administrative personnel (headmasters and education directors) in the process of rolling reform activities and the kind of training they required to cope with a changing situation was a further concern of the examiners.

In the field of adult education they raised the important question of methods, teacher training and research and development, designed to meet the particular needs of adults.

1.2.3 Relevance of the Examiners' Questions for and Effects of the Review Work on Swedish Educational Policies

It is difficult to assess the impact of the OECD examination after a lapse of ten years and given the general problem of measuring effects. It can be argued that the very fact of putting together a national report brings about thinking and discussion on how the educational system works and in this sense a review is always valuable. With possibly one exception, the examination does not seem to have had independent effects but rather served to lend general encouragement to efforts that were already under way.

The exception, already referred to above, was the finding by the examiners that resources for pre-school programmes were insignificantly developed in Sweden. This finding was one of the incentives to developing plans for such programmes within the Ministry of Education. A government committee was subsequently formed and programmes have expanded rapidly ever since. The questions of the examiners in this area thus served as an impetus for change which was later solidified by the increasing number of women entering the labour market.

Many of the other specific questions put by the examiners were no doubt pertinent, even if they had no independent effects - for example, the question whether a largely internal reform activity was feasible in the first place.

The farsightedness of the examiners lay rather in pointing to some potential problems that a system of self-generating change could possibly create and their scepticism about the possibilities of establishing a system of "rolling reform".

The examiners' questions were very relevant to the relationship between educational opportunity and socio-economic factors, one of the major areas of interest of educational planners in Sweden. For further discussion, cf. chapter 4.

Their question about the future integration of the various forms of education at the upper secondary level was no doubt to the point. In 1971 an organizational integration of the then existing forms took place, including a curricular reform of the vocational lines.

In the light of the current proposal from a government committee on marks in compulsory school and upper secondary school, the examiners' question about the necessity of using performance criteria and grade requirements for entrance to upper secondary school was interesting (cf. chapter 3.1 and 3.2).

The last group of examiners' questions concerned adult education which has expanded considerably since the review. This is true of municipal adult education, educational associations, folk high schools, state adult education, training by enterprises and other employers and not the least labour market training. (For further information about these educational facilities, see chapter 3.4.) The expansion has no doubt increased the relevance of the examiners' questions on methods, teacher training, research and development, designed to meet the particular needs of adults. Examples of efforts being made in this area are the special educational line for teaching of adults created at the university of Linköping and the considerable amount of in-service teacher training devoted to adult education which is arranged by the National Board of Education. However, educational planners and researchers are still battling with the problem of designing methods, aimed at making use of the experiences, knowledge and skills of adults in education.

2 THE EDUCATION SYSTEM IN SOCIETY - PRESENT SITUATION AND FUTURE TRENDS

2.1 Introduction

The development of the Swedish educational system in the last fifteen years has been characterized by the implementation of major reforms in almost every sector. These reforms have been affected by a number of factors both within and outside the educational system. Changes in population growth through internal birth rates and immigration are variables which have had direct consequences for the educational planning process. Changes in individual demand for education which in turn are influenced by e.g. eligibility rules and prospects on the labour market have affected the educational system in a number of ways. Technological and structural changes on the labour market have resulted in changes in the educational system both in terms of the relative proportion of different types of education and in terms of content. The effects of economic fluctuations on education are also noticeable. In a recession the demand for education seems to increase as fewer jobs become available. This is probably mostly true of young people; the intake into the Swedish upper secondary school in autumn 1977 and 1978 was higher than ever before. Effects on other parts of the educational system are more uncertain or obscure. The demand for education may well decrease in a recession due to increasing uncertainties about job prospects. Does it pay to pursue studies, particularly within higher education?

Economic shifts affect the resources allocated to the educational sector. The expansion of the educational sector during the 1960s was made possible through sustained economic growth. Education was then regarded as one of the most important factors, if not the most important one, in achieving social mobility and promotion. The present economic slow-down, which has persisted longer than was anticipated, will affect public expenditure in the educational sector as well as in other sectors of the economy. The implementation of educational reforms that are judged desirable, such as the financial system of study grants and loans, will most probably have to wait. However, a great expansion of the educational system has already taken place, allowing for example the majority of compulsory school leavers to take part in upper secondary education. Additional resources for the educational sector are motivated by other factors, such as high unemployment rates among young people.

A somewhat special external factor which to a certain extent has influenced the educational system was the municipal reform decided upon by the Swedish Parliament in 1962 and fully implemented in January 1974. This reform meant that about 800 municipalities were transformed into 278 larger ones.

The reform also meant that administration was facilitated and that the former smaller communities acquired increased political influence in the educational sector. The reform was one of the pre-requisites for decentralizing responsibility in educational matters to the local level.

All of these outside factors have set the frame within which educational policies can be developed. The actual educational system is a result of the objectives set and the strategies used to reach the objectives.

In the following section, an attempt will be made to describe the development of the external factors mentioned above and to analyze their possible effects on the educational system.

2.2 The Demographic Development and the Educational System

Changes in the population pattern are of fundamental importance for the planning process in society. This is not least true when it comes to planning in the educational sector. The size of age cohorts is a determinant of the total demand for education both in the compulsory school sector and in the voluntary educational sector in a mass education system.

The size of the population is determined by the number of births, the number of deaths and the rate of migration. For educational authorities at various levels changes in the distribution of the population over the country is a decisive factor for educational planning. Rapid changes in population due to any of the above factors are difficult to cope with as e.g. school buildings and other equipment and the supply of teachers can only be planned on a long-term basis.

Population growth in Sweden today is very low. Natural population growth, defined as the difference between the number of births and the number of deaths was 0,2 % in 1976. This situation is mainly due to the rapid decrease in the number of births, from 123,000 in 1965 to 98,000 in 1976. Despite this, Sweden increased its population during the period because of the high rate of immigration. Of the net population increase of 1,7 million people since the second world war about 0.7 million or more than 30 % were immigrants. Generally speaking, immigration has since the 1920s been greater than emigration except during the last recession when a large number of immigrants returned to their home countries. In 1974 immigration increased again whereas emigration decreased, thus reversing the situation to the "normal". The migration surplus in 1976 was 20,000, the highest figure since 1970.

It is estimated that the Swedish population in 1976 would have been about 9 % smaller without the actual immigration that has taken place since the war. The number of foreign citizens in 1976 was about 418,000. Among them the Finnish

group is the largest (45 %) who together with other foreigners from the Nordic countries constitute about 60 % of the total number of foreign citizens.

Immigrants contribute to Swedish population growth both directly by moving here and indirectly by producing children. The birth rate is higher among immigrants than among the native Swedish population.

Immigrants are often young when they come here. In general, immigrants constitute about 5 % of the Swedish population but more than 8 % among children of pre-school age and also among the 25-34 age-group. Immigrants are fairly unevenly distributed in the country. More than 50 % of all immigrants have settled in the three big metropolitan areas, Stockholm, Gothenburg and Malmö, in 1971-75. Within these large urban regions immigrants are often concentrated in certain residential areas, making them a quite noticeable part of the population. Consequently, in some schools in certain areas immigrants form a considerable percentage of the pupils.

There are two particular changes within the educational sector that have taken place as a consequence of immigration. One is the legal right of adult immigrants to be trained in the Swedish language, which employers are responsible for arranging in collaboration with the educational associations. The other is the obligation for the schools to arrange education in the native languages of the immigrant pupils. (For further information on this subject, see chapter 3.1).

The low fertility rate among Swedish women and its consequences in the near and far future has been brought into focus by the mass media. The reasons behind this development are probably manifold. Changes in attitudes as to the ideal number of children in a family, the increasing number of gainfully employed women, the still insufficient child care facilities, the increasing divorce rate and the present insecure economic situation are all factors which may have contributed to this development. In 1978 the Standing Committee on Social Welfare in Parliament published a report on demographic development, where the causes and effects of the low fertility rate were discussed. It was stated that further research in population trends was necessary. As a consequence a broad statistical survey is being made by the Central Bureau of Statistics. The results will be available in 1979. Other research in population trends may also be initiated.

As in many other countries during the 20th century, the regional distribution of the population has been characterized by a large population growth in the large urban centres. The influx of people to the large urban regions came mainly from the North and some parts of the West. The factors behind this migration within the country were to be found in the structural

changes of the economy that took place during the 1950s and 1960s. Rationalizations within forestry and agriculture resulted in high unemployment rates locally, particularly in the North and migration to the large urban centres as a result.

However, this pattern was broken in connection with the recession in 1971. Many former migrants within the country then returned to their home regions. Since then a more balanced picture has been achieved. Recent migration has more often been directed towards nearby industrial towns. This development has not happened by chance; on the contrary, active regional policies, stimulating the creation and support of industries in various regions, have been a major feature of government action during the last decade. During 1977 and 1978 the large urban regions have anew attracted a lot of people from regions with high unemployment rates.

The problems which these various aspects of demographic development pose for educational authorities might be summarized as follows:

1 The insight into the relationships between educational level, occupational choice, which is largely determined in school, and migration within the country is an important variable for educational planners in view of the goal of equal opportunities. The migration from sparsely populated areas has also brought into focus the question of equal opportunities in education between those in sparsely populated areas and those in towns and cities.

2 The decline in birth rates will have a major impact on the educational system in the 1980s and 1990s. The number of pupils in the lower grades of compulsory school will naturally be affected first by this development and will decrease as from 1980/81. In the middle grades of compulsory school the number of pupils will decrease during the rest of the 1970s, and in the 1980s and will continue to be low during the 1990s. In the senior grades of compulsory school the number of pupils will increase till 1979/80 and will start to decrease as from 1980/81. During the whole of the 1980s the number of pupils at this level will successively decrease whereas a slight increase will take place in the early 1990s but the number will still remain lower than it is today.

Development in the upper secondary school will be characterized by an increase in the number of pupils up till 1983/84, when it will be 18 % higher than it is today. During the rest of the 1980s the number of pupils will decrease but will still be higher than today. A further decrease will take place and the number of pupils in upper secondary school will be about the same as it is today during the 1990s. This will have consequences for higher education but not until the 1990s.

Thus there is a need for augmenting the capacity of upper secondary education during the next ten years. This need will be met mainly through an increase of available places in the upper secondary school but in the short run also through an increased use of other facilities. In a longer perspective a complete remodelling of upper secondary education is needed. Proposals will be made by the Commission on Upper Secondary Education.

The development of the actual number of pupils in compulsory school does not in itself justify increasing school building. But the fact that regional differences in this development are considerable and that new residential areas are constantly being created results in a need for new premises during the next couple of years. The need for premises in upper secondary school is even more urgent in spite of the temporary uses of other facilities, referred to above. It is mainly vocational education within upper secondary school which calls for investment in new buildings.

3 The large increase in the number of immigrants has been and remains a big challenge to educational authorities. Except for education in native languages which has been a major component of the education within compulsory school, new activities might have to be created to ameliorate the situation of immigrants.

2.3 Trends in Individual Demand for Education

Individual demand for education is one important factor in the planning process of upper secondary and higher education. Another important factor is the demand for certain kinds of trained people on the labour market. Individual demand for education, the needs of the labour market and the structure of the educational system are all interdependent. The educational system is to a certain extent changed according to changes in individual demand and the structure of the labour market. However, individual demand will be directed by existing educational options and existing prospects on the labour market. The labour market will itself also change as a consequence of a changing supply from the educational sector.

The objective of educational planning in relation to individual demand is twofold: on the one hand to predict variations in individual demand and adjust educational provisions accordingly, on the other hand to guide individual demand in a direction which also corresponds to the needs of society as a whole.

The quantitative changes which have taken place in upper secondary school and higher education can to a certain extent be regarded as an indicator of changes in individual demand. This is also true of the changes in distribution between

various educational options in upper secondary school and higher education. The best indicator of individual demand, however, must be the actual first-hand choices made by the individuals, whatever factors influence those choices. Changes in individual demand could thus be analyzed in terms of the choices made at various stages, starting with the choice of elective subjects in the senior grades of compulsory school. Finally, one could try to investigate the impact of changes in individual demand on actual changes in quality and distribution of educational options in upper secondary school and higher education. The question then is how the educational system has corresponded to changes in individual demand. As educational planning also has the function of directing individual demand, the other question is how well this has been done. If there is a considerable lack of applicants for places in certain areas of education this is a sign of failure in gauging individual demand. The decrease in applications, during the last couple of years for the natural sciences line in upper secondary school can be cited as an example of such a failure. However, the focus of this short analysis will be a description of changes in individual demand and how these changes have influenced the quantity and distribution of educational options in upper secondary school and higher education.

The following presentation summarizes some of the results mentioned in a report by Kjell Härnqvist of the University of Gothenburg which was made as a contribution to the work of the OECD Secretariat on Individual Demand for Education. The report was published in November 1978.

The number of pupils in grade 9 whose choices of alternative courses in English and in Mathematics enable them to qualify for all branches of upper secondary school does not seem to have changed very much in the present system as compared with the elective system that preceded it, (For a description of the educational system cf. 3.1 and 3.2); it is about 40 %. The differences in choices between boys and girls and between children from different social classes are as noticeable, in the present system as in the former one.

The proportion of pupils who have continued to study after compulsory school has been very stable during the 1970s, i.e. about 75 %. However, the distribution of pupils in various lines in upper secondary school has changed somewhat. The proportion of pupils entering the 3- and 4-year lines and the 2-year theoretical lines has decreased while the proportion of pupils in the vocational line and special courses has increased correspondingly. Among those who left compulsory school in 1975 about 25 % entered the 3- and 4-years lines, about 12 % entered a 2-year theoretical line and about 35 % entered another line (vocational) or special course.

There is little difference between girls and boys as to the proportion in 3- and 4-year lines, 2-year theoretical lines or other studies in upper secondary school. But there is a very noticeable difference in the choice of subjects; boys choose technical and natural sciences study routes or studies preparing for work in industry, whereas girls more often choose humanities, social sciences, economics or studies preparing for office work, retailing, domestic work or nursing care. As in compulsory school the course choices in upper secondary school are highly correlated with the social background of the pupils. (For a discussion see chapter 4)

The differences between individual demand for various kinds of upper secondary education and the actual supply of study places are to a certain extent being reflected in the statistics collected by the Central Bureau of Statistics on applicants and admitted. Comparing such data for the nation as a whole the impression is that there is a fairly good fit between individual demand and supply of places. In 1975, for example, the proportion of applicants for upper secondary school of the total age group was 92.6 % and the total number of entering students 78.9 %. About the same proportion of pupils applied for and were admitted to 3-4 year studies and the same proportion applied for and were admitted to the 2-year theoretical lines. 48.9 % of the age group applied for and 35.4 % were admitted to the 2-year vocational lines.

However, there is not in reality such a good fit as these figures seem to indicate; those applying for a certain educational option are not always those who are admitted as places can be filled with second-choice applicants if their grades are higher. Also, if applicants for a certain branch are very few in a given district that particular education cannot be offered.

The development of the proportion of students in various lines and branches of upper secondary school referred to earlier can be illustrated by the development of first-choice applicants for various lines and branches, as has also been done by Hårnqvist. The number of applicants for the 2-year vocational lines increased by about 13 000 between 1972 and 1975, while the number of applicants for the 2-year theoretical lines decreased by about 10,000 in the same period. The first-choice applicants for the 3-4 year theoretical lines decreased by 5,000.

For the higher education system it has been of special importance how many students enter and graduate from the 3-4 year theoretical lines as these programs have been the main preparatory study routes for university studies. The percentage of students graduating from these study lines increased from about 12 % in 1960 to 21 % in 1966-67. It then rose to 28 % in 1968 and fell again to 21 % in 1975. The percentage of students graduating compared with those entering was 78 % for the 3-4 year lines, 79 % for the 2-year theoretical line

and 83 % for the 2-year vocational lines. These figures involve a number of transfers between the lines as well as drop-outs leaving or re-entering upper secondary school.

Perhaps the most striking feature in the development of higher education was the very rapid increase of new students in the 1960s. The number of university entrants (first registered) in per cent of 20 year olds rose from about 12 % in 1960/61 to almost 25 % in 1968/69. After that the number of entrants fell to 20 % in 1973/74 but started to rise again and is currently about the same as it was during the peak in 1968/69.

The number of applicants for those sectors of higher education where admission is restricted has increased steadily over the whole period. It is thus the individual demand for higher education with open admission that has fluctuated considerably.

The negative trend between 1968/69 and 1973/74 was particularly strong in the faculties of the humanities, social sciences and natural sciences. The decrease was particularly sharp for the natural sciences followed by the humanities. The fact that the number of students in the social sciences did not decrease as much can be attributed to the increasing number of older students, who entered social sciences as a result of changed eligibility rules.

Several other institutional changes might explain the development in these faculties, among them the more occupationally oriented study options introduced in 1969/70

The new admission rule, introduced in 1969, allowed persons aged 25 or more who have 5 years of work experience (at present 4 years of work experience) to study at the faculties of the humanities, social sciences and natural sciences. This has resulted both in a different age structure and a different structure of the students' social background.

Among those registering in 1974/75 according to the 25:5-rule explained above. 70 % were found in the faculties of the humanities, social sciences and natural sciences. Among first registered students in 1974/75 39 % were 25 years old or older compared with 11 % in 1964/65. The number of older students with a working class background has increased considerably since the mid 1960s. However, in relation to the size of this group in the total population the proportion entering higher education is still marginal. The working class constitutes about 45-50 % of the population, which can be compared with the proportion of individuals from the upper

class¹ which is 4-5 %. About 10 % among the students from working class homes begin studies within higher education, which in turn can be compared with the 80 % among students from the upper class¹.

The large number of older students has also changed the relationship between full-time and part-time students and the proportion of students aiming at a degree. In 1974/75 more than 50 % of the older students registered for part-time study and 80 % of them reported that they did not intend to take a full degree.

Higher education where restricted admission is applied has expanded since the 1960s. The number of applications increased between 1968/69 and 1969/70 but has generally decreased or levelled out ever since. The proportion between the number of applicants and the number of admitted has consequently increased.

Post-secondary schools for specialized vocational education have also enlarged their student body during this period. In some fields applications seem to have increased relatively more rapidly than admissions. Generally, the demand for such specifically vocationally oriented education seems to have grown.

Härnqvist points out 5 areas where changes in individual demand since the peak in 1968 have been particularly considerable:

- a shift from general and theoretical to vocational and practical studies at the upper-secondary level;
- a decrease in the graduation from university-preparatory branches;
- a decrease in the number of entrants to university faculties with open admission;
- an altered composition of the student body of these faculties with more older students with vocational experience, often without full secondary preparation and without plans for a full degree, sharing their time between work and part-time study;
- a decrease in the number choosing natural sciences both at the upper-secondary and university level.

¹ In this case with fathers who have a university degree

The analysis makes clear that institutional changes within the educational system have had a quite noticeable impact on individual demand. On the other hand the quantity and alternatives within post-compulsory education are no doubt dependent upon individual demand. It is actually almost impossible to reason in terms of causes and effects, as changes in educational institutions and changes in individual demand sometimes act as independent, sometimes as dependent variables.

2.4 The Relationship between Education and Employment

One of the functions of the education system is to provide the labour market with individuals possessing certain kinds of knowledge and skills. Within the Swedish educational system this function is mainly carried out in the upper secondary school, within higher education and in labour market training. In most cases the education is broad so as to prepare the individual for an occupational field rather than for a specific occupation.

However, recognizing that the employment aspect of education is but one out of several aspects, it is important to note that the employment aspect involves a number of dimensions (Bergendal, 1978).

Traditionally, the employment aspect of education has been confined to calculations of the number of individuals needed in certain occupations. This may have been accurate when structural changes in the economy were slow compared with today. The changes which have taken place during the 1960s and 1970s in working life, as regards work organization, job security, work environment and job content, make the relationship between education and employment an increasingly complex one.

Probably more so now than earlier there is no clear-cut relationship between formal education and the kind of work actually involved in most occupations. What is needed for most work tasks is certain knowledge and skills. These can be acquired through formal education, training or learning on the job. In the Swedish society formal credentials have in many areas played a comparatively little role, except for the professions and earlier the civil service.

This fact is one of the problems which faces manpower and educational planners in their attempts to balance the supply of and demand for manpower. The difficulties in such planning, using among other things forecasts of various kinds, obviously do not allow planners to refrain from planning.

The need for a closer relationship between education and working life has also been accentuated by the changed economic

situation during the last couple of years and the rising unemployment rates, particularly among young people. The question has been asked, e.g. in OECD meetings on youth unemployment and on vocational education and training, what role education should and could play to alleviate problems of unemployment.

However, the relationship between education and employment is of vital importance in any economic situation. It has also generally been recognized that transitional problems between school and working life will continue to exist even if the economic situation improves. Member countries of the OECD have initiated a number of activities both in the educational and in the manpower field to ease the transition. This is also true of Sweden.

Bergendal (op. cit.) discusses certain adaptations of the educational system which changes in working life may call for. The tendencies towards specialization in working life and to a certain extent in education and their drawbacks for the individual may call for a new education policy, where "breadth is accomplished not essentially by abstract studies in youth but by the varied experience during the whole life over a broad field of human activities, including both jobs and formal training". In such a recurrent pattern of education it may be advantageous to introduce some specialization fairly early. The implementation of a system where individuals alternate between work and education affects admission policies of post-compulsory education, both in terms of numbers, rules of qualification and selection. It also affects the content of education.

The law on job security, which has put restrictions on the right to dismiss employees, has most probably resulted in an increased internal recruitment in enterprises. This means that training financed and/or arranged by the enterprises themselves may have become of greater importance. Training in enterprises has actually increased since the beginning of the 1970s; a fact which was confirmed by the investigations made by the Commission on Training in Enterprise. The demand for specialized, ready-for-production knowledge may as a consequence get somewhat lower priority. If training at workplaces increases educational institutions may also get new tasks, in supplementing training with theoretical knowledge.

One particular aspect of the working environment, namely participation by the workers in decisions at various levels within the enterprise, may put new demands on the educational system. Necessary changes are not confined to the post-compulsory level but include compulsory education as well and involve the methods of teaching and learning and decision-making processes. (cf. chapter 4)

These aspects of working life have in certain cases already affected the educational system and others will probably do so in the future. Many of the already implemented reforms of the educational system and some reforms which are under way have been characterized by an objective to improve the links between education and working life.

In compulsory school various forms of contacts between school and working life exist, e.g. practical work orientation, study visits to workplaces, work experience at other workplaces for teachers, etc. (cf. chapter 3.6). In chapter 4 an evaluation of these relationships is presented as well as proposals for change.

In the upper secondary school many of the study lines include practical work experience. The special courses are all vocational. Study visits to work places and work experience at other workplaces for teachers, visits to the schools by representatives of working life and orientation towards working life as a special subject on the syllabi, are examples of contacts between the upper secondary school and working life. The terms of reference for the present commission on the upper secondary school state that the content of both the vocational and the theoretical lines should be remodelled in order to permit a choice between work and further education whatever the subject field studied at upper secondary school.

In terms of vocational orientation, higher education was earlier strictly divided between the professionally oriented courses with restricted admission and the courses within the faculties of humanities, social sciences and natural sciences. In the latter the students could choose almost any combination of subjects, which sometimes resulted in degrees with little use on the labour market and consequently high unemployment among these graduates. Thus even before the recent reform on higher education a system had been introduced whereby the combination of subjects for a degree in the open faculties was limited to what was supposed to be most useful on the labour market. A new type of vocational-technological short-cycle programs (YTH) has also been introduced for skilled workers in different types of industries (cf. chapter 5). Eligibility rules have been changed which makes work experience an asset for entrance.

Study and vocational guidance play a vital role in the attempts to balance supply and demand on the labour market. The system of study and vocational guidance has been changed considerably, e.g. through the appointment of special counsellors and the creation of local boards for cooperation between school and working life (cf. chapters 3 and 4).

All of the above are examples of the effort to link education and working life more closely together. The aim is not, however, to achieve a perfect fit between the educational system and the actual demand for manpower, even if this was

possible. If it is judged desirable to develop new patterns for the division of labour, it would seem unfit to reflect the present organization of working life in the educational system. Rather, a discrepancy between the supply of labour furnished by the educational system and the demand from the labour market would be necessary to promote innovation and development in working life.

Another word of caution may also be needed. This concerns the role of forecasts in educational and manpower planning. Forecasts serve as a necessary basis for decisions in planning. They are, however, but one factor among many to be taken into account in the process. This is so not only because forecasts cannot be exact but because planning, particularly in the long run, is a matter of political decision-making. Decisions about allocation of resources between different sectors of the economy have to be made and will consequently have a bearing on post-compulsory educational planning.

3 DESCRIPTION OF THE PRESENT EDUCATIONAL SYSTEM

3.1 Compulsory School

The governing authority responsible for the comprehensive compulsory school is the municipality. Responsibility at the local level is vested in a school board, which is elected by the municipal council to serve a three-year term. Central government is represented in every county by a regional school authority, the county board of education.

The National Board of Education (SÖ) is a central civil service department, subordinate to the Ministry of Education and Cultural Affairs. It is responsible for coordination, planning and rationalization of the school system, for pedagogical research and development, and for centrally provided information, counselling and service.

3.1.1 Cooperation between Compulsory School and Pre-school

The Pre-School Act which came into force on July 1, 1975, obliges all municipalities in Sweden to engage in pre-school activities. Today, all children are entitled to a place in pre-school during the academic year when they become six years of age. A pre-school is supposed to cover at least 525 hours. Activities may be divided up into two-year periods, in which case provision must be made for at least 700 hours.

Children who for various reasons need special support in their development should preferably obtain pre-school places before the age of six. The local authorities are supposed to find out which children need pre-school places for special reasons and take steps to help such children exercise their rights. Moreover, the municipality must disseminate information about pre-school activities and their purpose.

Pre-schools have expanded vigorously in consequence of the law. As a rule the children spend three hours a day in kindergartens, while the time spent in day-care centers and family day-care homes varies from a few hours to the whole day. Although day-care centers have proliferated in recent years, there still are not enough to meet the need. The goal is to provide day-care places for all those who need them by the mid-1980s.

Since June 1, 1978 the official syllabus for the compulsory school (Lgr 69) contains recommendations on collaboration with the pre-school. This cooperation should operate at different levels and in varying contexts: assistance rendered by the pre-school to help the child change over to the regular school, teamwork between schoolchildren and children of pre-school age, joint efforts to contact homes, and similarly concerted endeavors to prepare school starts for children who need special support. Further, the two systems are called

upon to develop methods of work in common.

Nearly all municipalities have established some form of contact between pre-school and school. The most usual practice is to hold conferences in connection with school starts. Other forms of cooperation are for teachers and pre-school staff to meet for common study days, for pre-school children to visit the school and for schoolchildren to visit a pre-school. As of 1974 about one municipality in every four had a permanent liaison body (Lannerwall, Lokala försök med samverkan förskola-lägstadium, 1975). Such coordinating agencies are prescribed in the Pre-School Bill and the Bill on the Internal Working of the School. The cooperation seems to have developed considerably in the past few years. A survey of interaction patterns is now under way in several municipalities.

3.1.2 Nine Grades

The compulsory school has nine grades divided into three levels:

- junior level (grades 1-3, lower primary)
- middle level (grades 4-6, upper primary)
- senior level (grades 7-9, lower secondary)

The goal is that the compulsory school classes should be undifferentiated, which means that the pupils largely should stay with the same classmates from the beginning. But when studying optional subjects at senior level, the pupils are brought together in separate groups according to choice.

Every grade consists of a 40-week academic year divided into an autumn term and a spring term.

3.1.3 Compulsory School Attendance

Children in Sweden start school in the autumn of the calendar year in which they reach the age of seven. Under certain conditions, however, the school start may be set one year earlier. Compulsory school attendance is in force up to and including the spring term of the calendar year in which children reach the age of 16. Compulsory education may be completed in the regular 9-year comprehensive school or, as regards certain handicapped pupils (slightly more than 1 percent), in a special school for the mentally retarded or another special school. The legal requirements may also be satisfied in private schools, but attendance at such schools is very small (less than 1 percent).

3.1.4 Timetables

For all levels the reference here is to hours per week put in by the pupils. In order to facilitate individualized instruction the weekly hours of teachers exceed the weekly hours of pupils.

Junior level

Grade 1		Grade 2		Grade 3	
Swedish	9	Swedish	11	Swedish	9
Mathematics	4	Mathematics	4	Mathematics	5
Music	1	Music	1	English	2
Gymnastics	1	Gymnastics	2	Music	2
General subjects ¹	5	General subjects	6	Sloyd ²	2
				Gymnastics	3
				General subjects	7
Total hpw	20	Total hpw	24	Total hpw	30

¹General subjects = orientation in religion and local history-geography.

²All pupils are given instruction in textile-making, wood carving and metalwork.

Middle level

Grade 4		Grade 5		Grade 6	
Swedish	9	Swedish	8	Swedish	9
Mathematics	5	Mathematics	5	Mathematics	5
English	2	English	4	English	4
Music	2	Music	2	Music	1
Art	2	Art	2	Art	2
Sloyd ²	3	Sloyd ²	3	Sloyd ²	3
Gymnastics	3	Gymnastics	3	Gymnastics	3
General subjects ¹	8	General subjects ¹	8	General subjects ¹	8
Total hpw	34	Total hpw	35	Total hpw	35

¹General subjects = orientation in religion, civics, history, geography and nature studies.

²All pupils are given instruction in textile-making, wood carving and metalwork.

Senior level

Grade 7		Grade 8		Grade 9	
Swedish	3	Swedish	3	Swedish	4
Mathematics	4	Mathematics	4	Mathematics	4
English	3	English	3	English	3
Music	2	Art	2	Music	1
Art	2	Sloyd ²	2	Art	1
Sloyd ²	2	Domestic science	3	Sloyd ²	1
Gymnastics	3	Gymnastics	3	Domestic science ³	2
General subjects ¹	10	General subjects ¹	10	Gymnastics	3
Freely selected	2	Freely selected	2	General subjects ¹	10
work		work			
Elective	4	Elective	3	Elective	4
Total hpw	35	Total hpw	35	Total hpw	35

¹General subjects = orientation in religion, civics, history, geography, biology, physics and chemistry.

²Pupils are permitted to choose either textile-making or wood carving and metalwork.

³In grade 9 the subject of domestic science includes one-half hour per week devoted to child theory.

Teachers and pupils at all levels may consult with the school management to plan for arrangements other than those specified by the timetable, e.g. in order to take periodic studies or mount joint projects. For individual pupils, moreover, exceptional modifications may be made to the timetable if this is conducive to their course of study.

Electives

The electives (optional subjects) in grades 7-9 are French, German, economics, art and technology, and the pupil picks

one of them out before every grade starts. Another elective may be chosen in grades 8 and 9 than in the previous grade. But in grade 9 French or German may be selected only if the pupil has attended earlier instruction in that language.

Alternative courses

The subjects of English, German, French and mathematics, as taught in grades 7-9, offer an easier (general) and a harder (advanced) course from which to choose.

Important branches of knowledge

Compulsory school pupils are introduced to many branches of knowledge which are not set out on the schedule as subjects for separate study. Most of the subject matter here has to do with the great problems of coexistence and survival which beset both our own society and the rest of the world:

- working life
- family life and consumerism
- sexual and marital problems
- sex roles
- environmental protection
- traffic
- economics
- international issues
- instruction in alcoholism, narcotics and tobacco

3.1.5 Marks

Marks are awarded at the end of the spring term in grades 3, 6 and 7, and after that at the end of every term until completion of compulsory schooling. The local board of education may at its discretion replace the award of marks in grades 3 and 6 with some other form of record transcript.

Marks are awarded on a 5-point scale and distributed according to the so called relative system (Gauss' curve). The system of marks has been overhauled by a government commission which has proposed that marks be abolished in compulsory school. A review of the commission's proposal is being made at present.

Class teachers/form masters regularly inform the home about how the pupil's work is progressing.

Upon completion of compulsory school all pupils are qualified to pursue further studies in upper secondary school. The choice of elective at senior level does not affect the general qualification for education after leaving the compulsory school.

However, some theoretical lines in the upper secondary school require a special course in English or in mathematics. None the less, a pupil is always permitted to "make up", i.e. study a subject that is missing in the final record transcript, in order to qualify.

3.1.6 Special Instruction

The greater part of all special instruction keeps within the compulsory school framework. Less than two percent of the pupils in every age cohort are taught in separate institutions, mainly special schools for the mentally retarded and other special schools.

Only about 1.5 percent of the compulsory school pupils attend marked-off special classes, i.e. classes for slow learners, remedial reading classes, observation classes (for children with serious behavioural disturbances), classes for immature children, classes for pupils with impaired vision, classes for pupils with impaired hearing and classes for pupils suffering from motor handicaps. The special classes are much smaller in size than ordinary classes, averaging around eight pupils in the 1977/78 academic year.

Over and above the foregoing, pupils enrolled in ordinary classes receive special instruction for limited periods in limited subjects or subject segments. These pupils, who normally work in their regular class, go to a clinic for special instruction or are helped out in their regular class by auxiliary teachers.

To a considerable extent, too, handicapped pupils attend ordinary classes. Under normal conditions, timetables and syllabuses in the compulsory school are equally valid for special instruction and for ordinary instruction.

3.1.7 Native Language Instruction

Today, the school has a great many pupils who speak tongues other than Swedish or who come from other cultural backgrounds (just over eight percent).

Native language instruction consists of home language teaching as a subject and study guidance in the native tongue. The municipality is supposed to inform pupils and their parents about the right to native language instruction and is obligated to provide such teaching.

The ultimate aim is to let pupils develop a bilingualism that will enable them to feel at home in two cultures.

The municipality decides on how to make best use of the combined state subsidy resource represented by native language training in the pre-school and native language instruction

in the compulsory school and upper secondary school. The rules require close interaction between a local school board and the social services administration on a variety of matters. It may be necessary for the municipalities to centralize some of their compulsory-school instruction of immigrant pupils both for economic reasons and in order to promote social security.

The municipalities can organize the instruction for immigrant pupils in some alternative ways. One way is to form special native language classes where all instruction is given in the native tongue. Another way is mixed classes where a special native language teacher instructs the immigrant pupils. In areas with few immigrant pupils these are integrated with the ordinary classes.

3.1.8 Teachers

The junior-level and middle-level pupils are taught by class teachers, while senior-level pupils are taught by special subject teachers. Every class teacher is form master in his or her class. Every senior-level class has a form master as one of its special subject teachers.

Separate teaching positions are set aside to handle special instruction and the same holds true for instruction of linguistic minorities in their native tongue.

3.1.9 Financing of the Compulsory School

Central government (the state) and local authorities (the municipalities) share, in roughly 50-50 proportion, the costs of compulsory schooling, which include capital as well as current expenditures. In the 1977/78 fiscal year, the state contributed 7,507 million kronor towards the operation of compulsory schools. The state contributes nearly 100 percent of the costs incurred to pay the salaries of headmasters and teachers. In addition, the state underwrites in varying degree the costs of construction, interior fitting and equipment of new schools as well as the renovation of older schools.

For its part the municipality answers for the operation and maintenance of school properties, for school lunches, school transport, textbooks and other teaching aids, and certain other social costs.

In the fiscal year 1977/78 the annual cost per compulsory school pupil was about 14,400 kronor, with the state contributing SKr 7,200 of this figure.

The maximum enrolment in grades 1-3 is 25 pupils per class, in grades 4-9 30 pupils per class. As of the 1974/75 academic year there were about 1.03 million pupils and about 78,000 teachers in the compulsory school, equivalent to a 1:13 staffing ratio. Corresponding figures for 1978/79 were 1.04 million pupils and 95,000 teachers (actually filling 74,000 posts), with a resulting staffing ratio of about 1:14.

3.2 Upper Secondary School

3.2.1 Organization: Lines and Courses

Upper secondary school (gymnasieskolan) is non-compulsory. Since 1971 it is an integrated institution comprising 23 different study lines. In addition to the lines there are a large number of special courses.

There is no formal distinction between general (theoretical) lines and vocational lines; all the lines contain subjects of a general nature as well as vocational subjects, but the vocational element is still small in some of the three-year lines (liberal arts, social sciences, natural sciences).

The table below shows the various lines of the upper secondary school.

Table 1. The upper secondary school by sectors

Arts and social subjects	Economics and commercial subjects	Scientific and technical subjects
<u>2-year lines</u>	<u>2-year lines</u>	<u>2-year lines</u>
consumer line	distribution and	clothing manufacturing line
nursing line	clerical line	building and construction line
social line	economics line	electro-technical line
music line (experimental)		motor engineering line
		agricultural line
		food manufacturing line
		processing techniques line
		forestry line
		woodwork line
		workshop line
		technical line
<u>3-year lines</u>	<u>3-year line</u>	<u>3-year line</u>
liberal arts line	economics line	natural sciences line
social sciences line		
		<u>4-year line</u>
		technical line
<u>Special courses</u>	<u>Special courses</u>	<u>Special courses</u>

In the technical line technology is taught as from grade 1. There are the same courses in science subjects as in the natural sciences line (see below). The completion of these studies entitles to a certificate of college engineer (gymnasieingenjör). Students who intend to go on to technical higher education can get a school leaving certificate at the end of grade 3.

In the liberal arts line three foreign languages are compulsory throughout the study. In grades 2 and 3, however, one language can be replaced by social studies or aesthetic specialization. Latin and Greek are also offered as voluntary subjects in grades 2 and 3.

Central subjects in the social sciences line are social science and psychology. Courses in for example mathematics and a 2-year comprehensive natural sciences course also form part of this study line. An option between social or aesthetic specialization also applies in this case.

In the economics line the main subjects are business economics and other economics subjects, and law. Options as above.

Mathematics, physics, chemistry, and biology are the main subjects in the natural sciences line.

The two-year social, economics, and technical lines are rather less theoretical than the corresponding three- and four-year lines, and concentrate more on practical applications.

Students in the technical line must do practical work for nine months between grades 1 and 2 unless they have completed such practice earlier.

All the rest of the two-year lines are mainly vocational, but they all contain general subjects: Swedish, working-life orientation, and gymnastics, and furthermore an option between general subjects like English, religion, psychology etc.

The vocational training is of a general character and presupposes that specialized training will be given in industry, commerce, etc. after the completion of schooling. The vocational education is organised in the form of so-called block training, starting with a broad basis with subsequent gradual specialization. In a basic block the education is combined into elements common to the various vocations to which the line leads. The subsequent blocks become more and more specialized.

In addition to the lines presented above there are lines or variants of lines which are experimental in character. The two-year music line is one example.

Besides the lines there are a large number of special courses, most of which are strictly vocational. They vary in length from a few weeks to six terms, and are based either on the compulsory school or on completed, or partly completed upper secondary school. Previous practical experience is often a requirement for admission.

3.2.2 Curricula

Curricula are issued centrally. They are kept up to date by continuous revision ("rolling curriculum reform"). In this revision representatives of the various sectors of working life often take part. Final examinations have been replaced at all levels by so-called assessment, including nation-wide standardized tests (see below).

3.2.3 Admission

Comprehensive school-leavers with leaving certificates from grade 9 possess the general qualifications required for admission to upper secondary school. Admission to some lines of study also requires special qualifications. The main rules concerning special qualifications are as follows.

Candidates for the three-year scientific line and the two year technical line as well as the four-year technical line must have taken the special (i.e. more advanced) mathematics course at the senior level of compulsory school.

The special English course is required for all the three year lines.

Admission to certain specialized courses is also subject to special conditions; e.g. subjects previously studied, the age of the candidate and previous vocational practice.

A vocational practice quota is applied for admission to the two-year social, economics and technical lines of upper secondary school and to the music line. A quarter of the places available are reserved for candidates who may lack the formal qualifications for admission but who have acquired work experience or vocational training relevant to the course of study applied for.

3.2.4 Marks

In upper secondary school marks are awarded at the end of every term.

Marks are awarded on a 5-point scale and distributed according to the Gauss' curve. An already mentioned parliamentary commission has proposed the adoption of a 3-point scale, using somewhat different criteria.

3.2.5 Exams

There are no entry or final examinations. Tests devised and issued by the National Board of Education are given in certain important subjects in grades 2 and 3. Special officials of the Board (Inspectors) check the standard of teaching, supervise the setting of marks, and give advice to school personnel.

3.2.6 Teachers

The three main categories of teachers at the upper-secondary level are adjunkter ("junior masters"), lektorer ("senior masters") and yrkeslärare (vocational teachers).

Junior Masters (Adjunkter)

Theoretical training in special subjects for the upper-secondary level is provided at the universities and such training leads to a Bachelor's degree. Students aiming at a teaching career receive some pedagogical instruction during their university studies.

After taking a university degree the future teacher receives training during one year at one of the teacher training colleges which have been integrated within the new system of higher education.

Senior Masters (Lektorer)

An appointment as senior master generally requires a degree at the doctorate level. Those who have a master's degree in economics and engineering can also become senior masters in their subject fields, if they have some special qualifications. Apart from this requirement, training at a teacher training college is required for a senior master.

Vocational Teachers (Yrkeslärare)

An appointment as a teacher in vocational subjects requires training and practical work experience in the vocation concerned, as well as teacher training in a teacher training college.

Teachers in aesthetics and practical subjects for different levels are trained at various special colleges (handicraft teachers at the Training College for Handicraft Teachers, drawing teachers at the Art Teachers' Training College, incorporated in the School of Arts, Crafts and Design). This training is now being reviewed and reform plans are in progress.

3.2.7 Financing

Costs are shared between state and municipalities in a ratio of 55 to 45 per cent. In the fiscal year 1977/78 the national budget contributed 2 271 million Skr to upper secondary education. State subsidies cover nearly 100 per cent of the salaries of headmasters and teachers, of certain other staff and of selected items of equipment. The costs of material in general, as well as of building, school meals and other social benefits are mainly defrayed by the municipalities.

The net costs per pupil amounted to 17 650 Skr, in 1977/78 out of which about 10 000 Skr is paid by the State.

3.3 Higher Education

3.3.1 Study Organization

Through the implementation of the last reform all higher education forms one unified system. Up to 1977, some groups of colleges were separate from the traditional university system, e.g. teachers colleges, which were administered by the National Board of Education, and the schools of social work, which have had independent boards directly under the Ministry of Education. Other types of professional training were not previously regarded as higher education but are now included, e.g. the training of nurses and artists.

The deliberate avoidance of a binary system of the kind that is found in for example Great Britain is due to a wish to get away from the difference in status between different kinds of education on the same level. It should also facilitate the choice of studies for the students, and the allocation of resources to studies of similar kinds. Furthermore, it is an effort to meet the demands for research connections between different types of higher education without setting up separate, small, research departments outside the university. At present there are ten institutions of higher education where research is done and the training of researchers is provided. In all, there are some thirty institutions of higher education in Sweden.

An exception to the general rule of a unified system is the University of Agriculture, which still has an independent board under the Ministry of Agriculture.

To higher education which is under municipal sponsorship somewhat different rules and regulations apply.

The programmes offered by the colleges and universities at the undergraduate level are of four kinds:

- (1) General full-degree programmes or general study lines

- (2) Local full-degree programmes or local study lines
- (3) Individual full degree programmes or individual study lines
- (4) Single courses

The general full-degree programmes (1), which number about 100, are offered at most of the colleges and universities which have programmes within a certain field of study. They represent the main road to a basic degree or corresponding competence. The programmes vary in length from 1½ years to 5½ years. The local (2) and individual (3) programmes represent varieties. All programmes are built up of courses.

The aim of single courses is mainly to offer further or advanced training in a specific field. Students may register for just one course but can also study several courses continuously or recurrently. A course which is part of a full degree programme may also be offered as a single course.

3.3.2 Admission

A new admissions scheme has been introduced. The main road to college and university studies has hitherto been the three-year curricula of the upper secondary school. Since the end of the 1940s several marginal groups with various educational backgrounds have been admitted. During the 1970s an experimental program for extended admittance has been in use, allowing adults with less formal schooling to enter some of the courses at the universities.

There are now four main categories of students within most parts of higher education:

- (1) Those who have completed a three-year upper secondary education
- (2) Those who have completed a two-year upper secondary education
- (3) Those who have a certificate from a folk high school (cf. 3.4)
- (4) Those who are 25 years of age and have at least four years of work experience

As to category (4) the rules which applied before the reform were somewhat different. Individuals who were 25 years old or more and who had five years of work experience could apply for entrance to some general study lines within the humanities and social sciences and to the programme of the School of Social Work. This was an experimental scheme. Through the

reform, however, every programme was opened to this category of students, the amount of work experience required was reduced by one year and it is now a permanent feature of higher education.

The number of candidates accepted from each category will be directly proportional to the number of applicants in each group. Applicants in categories (1) and (2) may add work experience to their schoolmarks according to a certain points-system. In order not to make work experience a decisive factor there is also a guarantee rule, implying that 20 per cent of the places in each programme should be reserved for applicants without work experience.

There is an important distinction between general and specific requirements. General requirements apply to any programme, specific requirements pertain to specific programmes. General requirements include skills in English and Swedish corresponding to the requirement of two years of study in upper secondary school. Adult applicants in categories (3) and (4) have to verify their capacity in English. Specific requirements vary considerably between study programmes. Especially programmes in pure science, technology, medicine and other life sciences presuppose knowledge of mathematics, physics, chemistry and/or biology, but special requirements are also laid down in Swedish and other foreign languages than English for some full-degree programmes.

There are admission boards both at the central and the local level. These boards consist of representatives of "the public interest", the teachers and the students. The selection of applicants to general and local study lines is made by means of a central computerized system within an admissions unit at the National Board of Universities and Colleges, whereas the admission to single courses is administered by the local admission boards.

At present, admission to most programmes and courses is restricted. There are, however, some courses and a number of full-degree programmes, notably in the fields of the humanities and social sciences, to which entry is free. Because the entry is free, it is not possible to calculate in detail the need for resources in advance. If the influx of students to the free sector proves to be substantially greater than calculated the institutions of higher education receive additional resources from Parliament.

However, Parliament decided in December 1978 that as from July 1, 1979 restricted admission will apply to every type of higher education.

3.3.3 Administrative Organization

The Swedish Parliament is at the top of the formal hierarchy of higher education. Since 1977 there is a law on higher education which states the basic rules and regulations of higher education. Parliament decides which general study programmes are to be offered, the length of these general programmes and the localization of higher education. Finally, it votes once a year the thirty-item budget of higher education.

However, all these decisions have been prepared at the ministerial level. The preparation of such proposals on higher education is thus one of the main tasks of the Ministry of Education. Higher education institutions which fall under county and municipal authorities are in a special position, linked as they are to upper secondary education. However, although the formal control of the Ministry of Education is less here, it is still important.

At the level of central agencies, the National Board of Universities and Colleges is responsible for the bulk of higher education. Other important central agencies are the National Board of Education (which is the agency responsible for all primary and secondary education in Sweden), the Board of the University of Agriculture, and the Central Study Assistance Committee. However, even for the specific areas where the National Board of Education has a direct responsibility, does the National Board of Universities and Colleges have the overall planning mandate. This is exercised in consultation with the other agency.

At the regional level six regional boards have been created for the coordination of the overall planning of higher education within each region. The regional boards have a special responsibility for the programs of single courses, local and individual study lines for which they allocate money to the different institutions out of a lump sum for such purposes distributed to them for each fiscal year. The regional boards are also responsible for promoting links between basic higher education and research. The regional boards thus have planning responsibilities even for other than state institutions, including all those which are under the authority of county councils and municipalities. In the regional boards, politically elected members, representing different external interest groups within the region, form the majority.

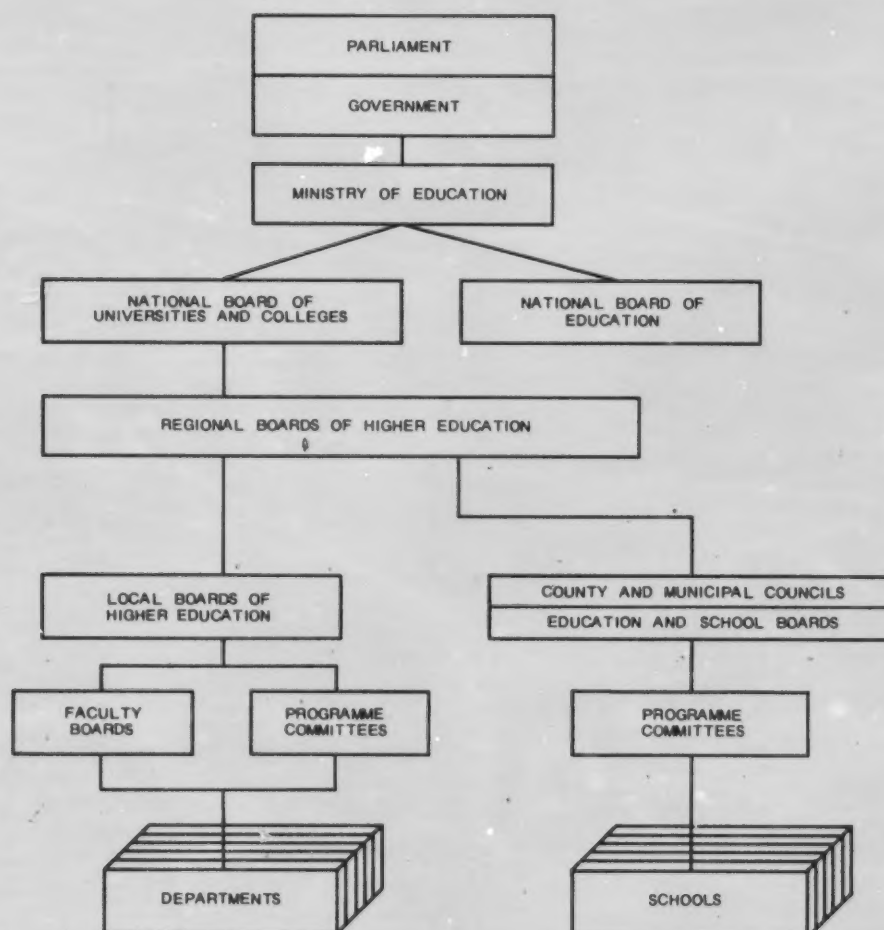
At the local level, local boards of higher education are those foremost responsible for the activity within the particular institution of higher education. Their area of responsibility thus encompasses for example economic administration and planning, personnel matters and the like. At the local level, external members also sit on various boards together with teachers, students and representatives of other categories of personnel. In this case, however, external members do not form a majority.

Within municipal higher education the educational boards of the county councils and the local school boards of the municipalities have corresponding tasks. Both boards consist of politically elected representatives.

The responsibility for undergraduate degree programmes and single courses rests with programme committees. Such committees exist both in state and municipal higher education. Representatives of working life sit on these committees.

The following diagram gives an idea of the administrative structure of higher education.

Figure 1 THE ADMINISTRATIVE STRUCTURE OF HIGHER EDUCATION



3.3.4 Decentralization and Localization

One of the most important goals of the new reform of higher education is the decentralization of decision making. It is the content of higher education which is the main focus in the process of decentralization. Since the implementation of the reform most types of decisions about course contents have been transferred from the former Chancellor's office to the local boards. The system of resource allocation has been changed in order to facilitate this transfer of responsibility. This system is presented below. The decentralization of decisions to the regional and local level and the system with representatives of various interest groups outside universities and colleges in regional and local boards have taken place simultaneously.

Higher education has also been decentralized in the sense that the future expansion of higher education will be in places other than the old university towns. The country has been divided into six regions of higher education in order to provide a more even distribution of the educational facilities. There are about 20 places where permanent higher education exists.

This deliberate geographic decentralization has been motivated by a wish to reach new groups of potential students. New participants in higher education may also be reached by the extension of local external courses, offered by the school board of a local municipality or by a university or college. Distance programmes have also been introduced. In the university and college towns both full-time day courses and evening courses on a part-time basis are offered. Most extra-mural teaching is offered as courses of slow pace, i.e. a one term standard course is taught over two terms.

3.3.5 Financing and the Allocation of Resources

The resources for higher education are distributed somewhat differently from the past. A division is made between resources for research and research training on the one hand, and for basic higher education on the other. The total volume of basic higher education is decided by Parliament every year.

The resources for basic higher education are divided into two different parts - resources for centrally planned full degree programmes (allmänna utbildningslinjer) and resources for locally initiated study programmes, individual study programmes and single courses. The first type of resources can be fairly well calculated on a national level, as the full degree programmes have a fixed number of study places. These resources are destined directly for those universities and other institutions of higher education which offer the full degree programmes.

The second type of resources are voted by Parliament from what is deemed necessary to fulfil educational and political goals. These resources are distributed as lump sums and are destined for the regional level. The regional boards then redistribute the money to the various higher education institutions within the region. Contrary to the full degree programmes which are decided by the government, these study programmes often vary from one year to another. Local wishes to arrange courses must therefore be compared with other local wishes on a regional level and "bargained" before the resources are distributed. This gives power to the regional boards which make the final decisions.

Resources for research and research training are allocated directly to the institutions of higher education and are in all cases divided according to existing faculties.

In the autumn 1977 about 150,000 students were registered. Among these students 45 per cent were 24 years of age or less, 50 per cent were between 25 and 47 years old and 5 per cent were 48 years of age or older. Although the proportion of male and female students was about the same the study choices follow traditional sex role patterns.

The total number of yearly places in higher education during 1977/78 was 124,000. The number of yearly places for new entrants was 34,000 during the same year which can be compared with the 100,200 places for new entrants in upper secondary school (lines and courses of at least one year's duration).

Among the 124,000 places in higher education 84 per cent referred to general study programmes, one per cent to local study programmes and 15 per cent to single courses and individual study programmes. Among the general study programmes the largest proportion of places was found within the sector of administrative, financial and social work followed by medical and nursing professions.

In terms of financial resources for basic higher education the teaching professions sector was the largest, closely followed by training for medical and nursing professions.

Government expenditure on higher education (basic education and research) amounts to 2.2 per cent of total government expenditure during the fiscal year 1978/79. This corresponds to about 0.8 per cent of GNP.

3.3.6 The Follow-up Programme

Already in 1975 when Parliament in principle decided to implement the reform of higher education it also decided that the reform should be continuously evaluated. Consequently

the National Board of Universities and Colleges has recently launched a follow-up programme of the higher education reform. It consists of a series of independent but coordinated projects, covering the following problem areas: organization, budgeting systems and planning, activity planning and evaluation, contents and teaching forms, and social effects. Under the headline of contents and teaching forms are found projects on problem and project orientation as well as recurrent education; under social effects a certain project on the effects of the new admissions scheme and other projects on equalization.

3.4 Other Forms of Education

Since the time of the last OECD review adult education has grown very rapidly in Sweden. Attempts have been made both to open the regular educational system to adults and to create and expand special educational facilities for adults. Thus the entire youth educational system is open to adults and the eligibility rules applying to higher education have been changed in order to facilitate the participation of adults with varying educational backgrounds (cf. 3.3.2).

The special educational options for adults include for example education within educational associations, folk high schools, municipal adult education, labour market training, training by enterprises and trade union training. A brief presentation of these forms of education is given below.

The work of the educational associations is based chiefly on three principles: free and voluntary study, connection with a popular movement, objective and all-round illustration of the subject matter. At present ten educational associations approved by the State are in receipt of government grants.

The work of the educational associations is done mainly through study circles and covers the entire range from pure hobby activities to studies at the academic level. The number of people participating in courses arranged by the educational associations is very impressive; more than 2 million people attend more than 200,000 study circles every year.

The largest association is the Workers' Educational Association, linked to the workers' movement. The next largest is the Adults' School, associated with the Liberal Party and Center Party, and the Citizens' School, linked to the Conservative Party. Other educational associations are linked to other popular movements such as the Temperance Movement and the congregational churches.

The folk high schools differ in many respects from other comparable forms of education. The goal of the folk high schools is to give a general civic education, often with emphasis on a particular sphere of interest. Some folk high schools concen-

trate on the teaching of music and other aesthetic subjects, others train youth leaders, others specialize in sociological questions. There are at present 108 folk high schools, of which 47 are linked to the county councils and the remainder to organizations and popular movements. Nearly 50,000 students attend folk high schools every semester.

Municipal adult education is provided in accordance with the curricula for the senior level of compulsory school and for upper secondary school. It also includes special vocational courses. Studies usually take place on a part-time basis, to a large extent in the evenings.

Students may either take single subjects or study for complete qualification on a particular line. The teaching is organized in the form of concentrated study, which means that the student takes only one or a few subjects at a time.

About 275,000 students attended municipal higher education during the school year 1977/78.

Labour market training is organized jointly by The Labour Market Board and the National Board of Education. It is provided for reasons of employment. The scale and emphasis are determined by the prevailing situation on the labour market.

Subject to certain exceptions, labour market training is available to people who are unemployed or in imminent danger of becoming so or who for various reasons have difficulty in obtaining or retaining jobs. Labour market trainees must also be at least 20 years old and must be registered with the local employment service as seeking employment. During their training the trainees receive training and study materials free of charge together with certain free journeys and a monthly training grant. All costs are defrayed out of government funds. The training is provided in special labour market training centres, within the regular public educational system or in individual firms.

Labour market training has expanded considerably since the early 1960s. In 1960, the number of persons who started labour market training was about 12,000. In 1975 the corresponding figure was about 81,000. In mid-October 1977 about 103,000 persons participated in labour market training, including internal training in company plants, which was very extensive at this point.

The scope and emphasis of the training arranged by enterprises and other employers have until fairly recently been little investigated, with the possible exception of training within the "state" sector. However, a government commission investigated training in enterprises, county councils and municipalities during 1975 - 1977. According to these investigations the number of trainees in enterprises correspond to about 20-25 %

of all employees. The proportion is about the same in county councils and municipalities. The commission estimated that training existed in about 20 % of the enterprises with two or more employees. In these enterprises, however, more than 70 % of all employees working in enterprises were employed. Training existed in 95 % of the municipalities and in every county council.

Training varies a lot with company size; the larger the company the more likely it is that training takes place.

Training by enterprises, county councils and municipalities is very unevenly distributed. Individuals who have experienced a long period of education get more training than those with a short experience. Differences in participation in training are also found between white collar and blue collar workers, between individuals working full-time and those working part-time.

Trade union training. The two main union organizations, the Confederation of Trade Unions and the Central Organization of Salaried Employees, have extensive courses for training their elected representatives and active members. The training is given in residential courses of from two days up to three months or through the study circle method. About 140,000 persons attend these courses every year.

3.5 State Study Assistance

One of the prerequisites for providing postcompulsory education to any individual is that it is economically feasible to study. Therefore a system of state study assistance has been developed in Sweden.

The system of study financing which has been in use in Sweden until recently has been designed for continuous and uninterrupted youth education of the traditional type. It is actually divided into two systems, one for persons under 20 years of age, and one for those above that age. The former system, which is of very modest scope, builds on the notion that the young person is still a part of the family. The latter system is more generous but is designed for young students with relatively small financial obligations. In any event it does not offer a reasonable alternative to income from employment, particularly not if the individual wishes to study on a full-time basis.

It is therefore only natural that action has been taken to provide adult students with special financial aid. Through a parliamentary decision in 1975 a third form of economic support was created. This is known as adult education grants and is more favourable than the other forms of study assistance.

3.5.1 Student Aid

Students at upper secondary schools may receive student aid in the form of student allowances which are paid to all students, plus income-tested increments and repayable study means. The study allowance amounts to almost 200 SKR/month, the income-tested increment to a maximum of 105 SKR/month and the repayable study means to a maximum of 5 000 SKR/year. Boarding and travel allowances are supplements for those who live away from home or have to travel daily.

The present system assumes that the student is part of the family economy and the level is adapted accordingly. Since this form of aid was introduced it has lagged behind other aid forms. As other supportive measures of social welfare and family terminate when the children reach the age of 16 the net burden on the family economy increases as soon as a youngster starts attending upper secondary school. If the goal is to give everyone an opportunity to participate in upper secondary education, the low level of the financial aid does not contribute to the achievement of this goal; on the contrary, it is counter-productive. Hence it is necessary to increase the economic and social security to a level such as to entice young people to enter and complete upper secondary school. A special commission has now been empowered to overhaul the level and organization of the various forms of study aid.

3.5.2 Study Allowances

Study allowances are payable to students in tertiary education and in other institutions where students are 20 years of age or older.

The system consists of two parts: student allowances and repayable study allowances; the actual ratio between the two components is 1:8. As a complement, repayable child allowances are available if the student has the custody of children.

In the normal case study allowances are payable to every student. The amount may be reduced, however, if the total income of the student exceeds a certain limit and if the studies are not completed at the average pace.

The student allowance amounts to about 250 SKR/month, the repayable study allowances to 1 700 SKR/month (refers to autumn 1978).

The system is presently being reviewed by the government commission mentioned above with a view i.a. to facilitate the introduction of recurrent education and promote a more balanced social recruitment to education.

3.5.3 Study Assistance for Adults

As from July 1, 1976 there is a specially advantageous state study assistance for adults aimed at compensating for loss of earnings incurred by educational leave of absence. It is thus the financial backbone of the law on educational leave of absence. It is built up so as to cover in principle the income forgone by an industrial worker. In reality the adult grants scheme consists of three different aid forms, one for full-time studies lasting at least 15 days, one for hourly compensation chiefly intended for participants in study circles, and one which gives daily compensation for shorter courses.

The first one consists of an allowance amounting to a minimum of about 1 600 SKR/month and a maximum of about 2 000 SKR/month after taxation and of a repayable loan of about 660 - 780 SKR/month. The hourly compensation amounts to 25 SKR/hour or in some cases of 10 SKR/hour for a maximum of 28 hours/week. The daily compensation consists of an allowance of 125 SKR/day subject to taxation and a board and lodging allowance of the same amount.

A scheme of financial aid on this scale is inevitably accompanied by restrictions. The number of persons who can qualify for such assistance is determined through annual decisions by Parliament. Financial aid is distributed among the applicants by adult education boards, one in each county. In order to meet the need for equality and recurrent education top priority is accorded to persons with limited educational background and with difficult working conditions, e.g. shift-work. Similarly, basic education is given priority over higher education.

The study assistance for adults is financed by means of a special levy on employers as part of the payroll tax.

3.5.4 Study Assistance in Labour Market Training

Persons in labour market training are entitled to a training allowance. As a rule, participants have to be at least 20 years of age, though there are exceptions to this rule.

For persons who are eligible for benefits from a registered unemployment fund, the training allowance is 11/12ths of their previous daily income within stipulated limits, the present range being 130 - 160 kronor a day. Persons over 20 who are not members of an unemployment fund automatically receive the lowest allowance. In addition, all participants get an allowance, at present 15 kronor a day as a general stimulation contribution.

The allowance, which is taxable, is paid for five days a week. Trainees may also be entitled to special allowances for subsistence, course fees, course material and travel costs.

For persons under 20 the training allowance is lower as a rule.

3.6 Study and Vocational Guidance

3.6.1 Definitions and Goals

The term study and vocational guidance is a collective designation for all the activities conducted by society in this sector. Study and vocational orientation (SYO) is a collective term for the entire program of study and vocational guidance for schools. This includes both theoretical and practical vocational orientation (PRYO) and measures administered by the Labour Market Board.

The goals for study and vocational guidance were established by the Swedish Parliament in 1971. As defined by the legislature, "study and vocational guidance should centre on the individual thus precluding the virtual steering of the individual in a particular direction or the withholding from the individual of information on which he should be left to form his own opinion. Attitudes of this kind tending to restrict the range of choices available should as a rule be counteracted. Special efforts should be made on behalf of groups which are at a disadvantage, e.g. persons affected by physical, mental, economic and social handicaps. Information concerning the requirements and opportunities which different educational routes and occupations imply for the individual are included in study and vocational guidance, but this guidance should also contribute towards the adaptation of education and working life to the individual."

It is further stated that although individually centered, study and vocational guidance can help to bring about a rational use of the resources of society as it is designed to counteract mistaken investments in vocational education, the discontinuation of studies, changes of occupation etc. due to unclear or erroneous ideas concerning one's own interests and abilities, the content of education or the state of the labour market.

3.6.2 Study and Vocational Guidance in Compulsory School and Upper Secondary School

The new SYO organization for compulsory school and upper secondary school was introduced in July 1973 and was fully implemented in July 1974. This new organization entails the appointment of a special SYO consultant, who is usually concerned with SYO activities in school on a full-time basis. The former careers teacher system, where these teachers combined teaching with SYO activities, will be retained in compulsory school until the new organization has been evaluated. At the end of an experimental period of five years, i.e. in 1979,

all aspects of the new SYO organization will be evaluated and once again referred to the Parliament.

The SYO consultant will normally be concerned solely with SYO in school, i.e. the appointment is not a teaching appointment. Various parts of SYO, such as practical vocational orientation, should be integrated with the teaching of several subjects, and the basic and in-service training of all teachers should include certain aspects of SYO. There is also a need for close cooperation in SYO-matters between various categories in the school, i.e. pupils, teachers, headmasters, SYO-consultants/careers teachers and others working in the school.

Another change is the creation of local councils for cooperation between school and working life, SSA-councils. These councils usually consist of representatives of the local school board, the employment services agency and the employer federations as well as the trade unions. In every council there is a secretary, employed by the municipality on a part-time or full-time basis. It is the function of the council to coordinate all the visits to workplaces in which the pupils take part. The councils are also involved in the special activities for unemployed youth.

A new element in the organization of the SYO activities is the follow-up work. Every municipality has responsibility for the students for up to two years after they leave compulsory school. These follow-up activities are mainly intended for students with special difficulties. The activities include study visits and extensive periods at workplaces and education lines in upper secondary school, "labour market days" with the local employment service, intensified personal or group guidance, information about further support and about possibilities of participating in short courses within upper secondary school or labour market training as well as support for students who are in special need when applying for further education or a job.

The overall planning of these follow-up activities rests with the local council for cooperation between school and working life and in certain cases this council takes the responsibility for the entire follow-up. The responsibility for the implementation of various activities within the follow-up usually rests, however, with the SYO-consultant.

Within the general study and vocational orientation of the schools, which is to prepare the students for their future working lives, general labour market orientation is very important. By this is meant general knowledge about working life, which is not specific for a particular occupation. Labour market orientation or general preparation for working life is given both in a theoretical and in a practical way. Examples of a rather theoretical preparation are the following:

- labour market orientation as a special subject within some of the two-year vocational lines within upper secondary school;
- participation in education by persons with experience of working life outside the school; e.g. personnel within the school, gainfully employed parents, employment service officers, representatives of the social partners or representatives of various occupations;
- study visits to educational institutions, work places and the employment service.

The objectives of the practical labour market orientation are to give the students some concrete experiences of working life. In compulsory school this is done through

- at least three study visits to workplaces outside the school in the 8th grade;
- work experience for two weeks at a work place in grade 9; and
- possibilities for certain students to extend the above period to four weeks.

In an attempt to increase knowledge about working life among students in compulsory school, experiments with enlarged labour market orientation are taking place in more than 80 out of 278 municipalities. Accordingly, the students should visit or work at workplaces during altogether 6 - 10 weeks while in compulsory school. Students should get work experience from various sectors of the economy, thereby giving boys insights into traditional female occupations and vice versa.

The vocational lines of the upper secondary school entail various forms of work experience. These lines are more or less built on the principle of alternation between theoretical studies and work. This is not the case with the three- and four-year theoretical study routes. Experiments with one week of work experience for students in these lines started already in the late 1960s in some schools. These experiments have expanded and are now a common element at many upper secondary schools.

3.6.3 Study and Vocational Guidance in Higher Education

The study advisors at Swedish universities and professional colleges are a fairly recent phenomenon. The first permanent positions for study advisors were created in connection with the university reform in 1969. In 1970 a group within the Office of the Chancellor of the Swedish Universities (The National Board of Universities and Colleges as from July 1, 1977) published a report on the outline of the aims, structure and tasks of the study advisory services. Since then the work of study advisors has shifted noticeably towards greater emphasis on labour market and vocational guidance matters. In

other words, the concept of study advice has become broader today than it was previously, and nowadays the term used is study and vocational guidance.

This trend can be attributed to declining employment opportunities for university graduates, which began about 1968-1969 and were accentuated in the years between 1970 and 1972. These employment problems for graduates confronted study advisors with entirely new problems. Students increasingly requested help with labour market orientation and vocational guidance, and study advisors were compelled to familiarize themselves with labour market issues, vocational choices and manpower trends.

A university's study advisory services are found both within its educational bureau and within each department. There is often a special study advisory group or section within the educational bureau.

The study advisors within university administrations perform the tasks of discussing study and career choices, job opportunities, etc. with students. They also provide group information to students, including orientation for new students and collective information for continuing students and for future university students. They provide written information to students, including the production of material. Finally they provide services to university departments and have a coordinating function as to study and vocational guidance within the university.

The study advisors at each department provide students with information on courses and study conditions at the department, individual counselling, advice on study techniques and information on student welfare matters. They also perform tasks related to academic instruction and examinations, such as keeping track of student registration and checking students' marks in order to help failing students and drop outs.

3.6.4 Study and Vocational Guidance within the Employment Services

In the activities of the employment service three different functions can be distinguished. One is group-centered informational activities, the second is individual employment service and the third is individual measures preparing for work. Study and vocational guidance is part of the third function. To get a full picture of the functions of SYO within the employment service some facts about the other activities have to be presented.

The preparatory measures for work are geared towards those individuals who need support in addition to contacts with an employer. This is the case when an individual wants to change his/her job, undertake alternative work tasks, move to another municipality, or when the individual needs or wants

vocational education and training. In order to decide what measures are necessary a special investigation into the needs and aspirations of the individual and existing possibilities on the labour market or in education is undertaken. Aptitude tests and other psychological measures, the course Working Life and Education (ALU), as well as medical consultations are items in such investigations.

The courses Working Life and Education have been particularly helpful in the SYO within the employment service. These courses give orientation and guidance about working life and vocational possibilities. The duration of these courses varies from 4 till 20 weeks. During the fiscal year 1976/77 around 11,000 persons participated in these courses, the majority in the four-weeks course.

The presence of SYO-consultants in labour market training has been widened, particularly in the courses Working Life and Education (ALU-courses). At some places there are permanent SYO-consultants. The demand for SYO has also been great from individuals in labour market training arranged outside ordinary training centers, e.g. within municipal adult education.

4 EVALUATION OF THE COMPULSORY COMPREHENSIVE SCHOOL

4.1 Goals for Educational Policy

The establishment in the past decades of the Swedish educational system as it has been described in the last chapter, should be seen against the general situation in the 1940's, which provided a starting point for such a thorough-going reform. By European standards, Sweden had a weak and backward school system at that time. Compulsory schooling in the elementary school, *folkskolan*, lasted only 6 or 7 years, and after that came a number of schools at the lower secondary level providing further education for less than a quarter of the pupils. Only 10 per cent passed through the whole secondary school. Technical and vocational schooling were limited to a corresponding degree.

It was this system that was replaced during a period of two decades by the one that has been described. The main objective as laid down by Parliament in 1950, was to raise the general educational level. This required an extension of the period of compulsory schooling. At the same time it was desired to make the school system more "democratic" by improving the educational opportunities of previously neglected groups and by replacing the system of parallel schools at the secondary level with a uniform school system. In addition, there was a desire to reorganise the internal work of the school. Instruction in practical subjects should be made equal to that in theoretical ones.

The series of goals, not all of which will be described here, comprised a combination of a programme of social policy and of educational policy. Broadly speaking, the goals formulated in the investigatory work that preceded the policy decision taken in 1950 and in subsequent documents concerned with goals, relate to both the development of the individual and the development of society. Of the separate goals that have been under continual discussion, three will be dealt with here: equality, the connection between education and social and working life, and codetermination for the parties concerned in questions dealing with how education should be conducted.

It should be emphasised at the outset that in discussing the course of reform, it is difficult to distinguish between ends and means. A goal which is closer to hand may often be seen as a means of achieving a more distant goal. Interest in the three goals of equality, the linkage with social and working life and codetermination is thereby primarily associated with the policy decisions taken after 1950 in order to approach these goals and the effects such decisions have had within the educational field and society in general.

Apart from this description of the course of reform, this chapter will present certain results achieved in respect of the three goals stated above. Academic achievement and methods of working are also dealt with as a special part of this evaluation.

Academic achievement is the outcome of efforts to reach goals in respect of knowledge and thereby of equality; the methods of work are a means of reaching these goals.

4.2 Equality through Education

4.2.1 Availability

The goal of equality is to be found in practically every education act and ordinance the world over. It is applied, however, in many different ways. An important aspect of equality within and through education is its availability to different groups in society. By deciding to introduce the nine-year compulsory school throughout the country, the availability of this education was increased by stages. Every year during the 1950's about a score of Sweden's municipalities went over to the new system. By the end of the trial period in 1962, half of all the municipalities responsible for providing schools had introduced the nine-year school. In the same year, Parliament decided on a ten-year transitional period for the schools in the remaining half. The transition was completed in accordance with the authorities' plans. By the end of the 1971/72 fiscal year, the last municipalities to join the system had gone through all nine compulsory school years. Most of the previously different lower secondary schools had been abolished at the same rate.

With that, a first and significant stage had been reached in the endeavour to achieve equality: common, compulsory schooling to the age of 16 was available to all. With a slight delay in time, the availability of post-compulsory education was increased in a corresponding manner. Recruitment to the upper secondary "gymnasium" school was expanded in step with the growth of the compulsory comprehensive. In 1954 a general line of study was added to the school's existing Latin and science lines. In 1966 these three were coordinated with the previously independent technical and commercial "gymnasias" to form a new upper secondary school. At the same time, two-year continuation schools were established as an addition to the new compulsory school. The continuation schools were of three kinds; technical, economic and social.

By 1970 recruitment to the "gymnasium" had risen to about 30 per cent of each year's compulsory school leavers. At the same time nearly 20 per cent went to the new continuation schools. Thus upper secondary studies were available to about half of each year's compulsory school leavers.

Alongside this, the municipal vocational schools were built up in the decade from 1955 to 1965. Most of these provided two-year vocational training after the nine years of compulsory schooling. 30-35 per cent proceeded to this kind of training each year. Through further reforms the various courses of study in the "gymnasium", the continuation schools and most

of the vocational schools were coordinated into a new integrated system comprising a total of 23 lines of study and a large number of special courses.

Nowadays, the number of pupils commencing studies in the integrated upper secondary school corresponds to 85-90 per cent of the 16-year-olds leaving the compulsory school each year. In 1968 Parliament decided that further education should be available to all compulsory school pupils. This goal has been attained in so far as the upper secondary school has room for almost all of those who apply. About a third of these pupils, however, are not admitted to the line of study given as their first choice, but have to take their second or later choices. The availability of desired education is thus still incomplete.

4.2.2 Accessibility

The availability of education is an essential aspect of equality. That places exist, however, is not sufficient. They should also be accessible to the individual. Sweden has always had problems resulting from the uneven distribution of her population, long journeys and children having to board away from home, even in the compulsory school.

The new nine-year compulsory comprehensive school included within it the lower secondary level (previously called the "realskola"), which has specialised teachers. A certain number of pupils and classes are necessary to organise that level, which can mean concentrating on a limited number of schools, resulting in long journeys to and from school even for pupils in the compulsory school.

A characteristic of the Swedish system is that the pupils in grades 1-9 form a unit (not always in the same school building but in the same headmaster's district), separate from the subsequent non-compulsory upper secondary school for grades 10-12 or 10-13. As a result of the compulsory schooling reform, lower and upper secondary schooling, which were previously often kept together, have been separated. The country is divided into compulsory school districts and upper secondary school regions. Thus there is always a particular compulsory school and a particular upper secondary school for each pupil. In sparsely populated areas it is common for both compulsory and upper secondary school pupils to have to travel up to an hour to and from school. Boarding also occurs in sparsely populated areas, especially among upper secondary pupils.

In order to mitigate the negative effects of long journeys in such areas, experiments have been conducted for some years with smaller lower secondary schools where the instruction is in part gradeless. Long journeys in sparsely populated areas are not the only reason for these experiments, however. They are also connected with the entire development

of these areas, where distance to services, places of work and social contact has become a great problem. The diminishing number of children of school age registered in each village has meant smaller and smaller schools, closures and thus longer journeys to and from school for the remaining pupils. School authorities both locally and centrally have tried to counteract this development and work on the so-called PANG project (Process Analysis of Non-Grading) has been a step in that direction.

The primary aim of the project has been to analyze the total situation of the pupils in a small non-graded lower secondary level school in the area where they live, compared to the situation they would have been in if they had been obliged to travel to normal lower secondary classes far from home.

Final analysis has not yet been made, but results presented thus far indicate that the standard of knowledge among pupils in the small non-graded lower secondary schools is not inferior to that among pupils in the normal lower secondary classes with which they have been compared. The results show that development of the non-graded lower secondary level is a perfectly sound alternative to the traditional lower secondary school in sparsely populated areas. The social advantages are obvious. They affect not only the school-children but the entire population of the area.

Normally, each individual upper secondary region is not able to provide all the upper secondary lines of study. For lines with few pupils, they therefore join together to form larger regions.

Thus for some pupils availability and accessibility are separate concepts. One element in the efforts to attain equality has been to provide compulsory school pupils with free transport (where appropriate also with free board and lodging). Special grants are paid to pupils who have to travel or live away from home, over and above the general study grant.

These arrangements, which came into being in the period after 1950, all aim at increasing the accessibility of education at all levels and thereby at promoting equality regardless of geographical, economic and social conditions for the student. Compulsory and upper secondary school pupils also have free books and materials and school meals.

4.2.3 Freedom of Choice

One of the goals for the educational system as laid down by Parliament in 1950 in its decision on the future development of the school system and which has often been repeated in education acts and curricula since then, was that the choice of which educational path to follow should be free. According

to this goal, it is the individual pupil and his or her parents who should choose, within the framework of what is provided by society. The pupil thus cannot be urged to take a certain course or subject by his or her teachers or headmaster. Free choice of educational path became one of the cornerstones of the 1962 Education Act. Practical application of this principle has had far-reaching consequences for the shape and function of the school and the educational system.

A first and important consequence was that the concepts "pass" and "fail" were formally removed from the compulsory school. An unsatisfactory result was accordingly to be attributed primarily to the school and not the pupil. In reality, marks 1 and 2 are still regarded as failure. The compulsory school is to be organised and run in such a manner as to promote the all-round development of the private individual. It has not been possible to follow this principle fully at the post-compulsory level either. Here, an unsatisfactory result can be indicated, normally by not giving the pupil any mark at all in the subject in question.

Another consequence of free choice is that staying on in the same grade in school has almost completely disappeared. Repeating a year's work occurs in odd instances, but as a rule only at the request of the pupil in connection with a desire to change courses.

A pre-condition of free choice is improved study and vocational guidance in school and an expansion of practical working life and vocational orientation outside the school as well. There are now special officials in each school to carry out this task (cf. 3.6).

4.2.4 Equality through Postponed Organisational Differentiation

Sweden is not alone in extending compulsory schooling to the age of 16. Such an extension has been introduced in most industrial countries during the post-war period. Neither is Sweden unique in its endeavour to include the lower secondary level within compulsory education. On the other hand, it is relatively uncommon among OECD countries to consistently delay organisational division of pupils at the secondary level until after compulsory schooling has been completed, i.e. until the age of 16. A certain amount of room for choosing a subject in addition to those studied by all the pupils is given from the age of 13. In foreign languages and mathematics pupils can also choose between an easier and a harder course, from the same age. The main principle, however, is that the pupils are kept together in undifferentiated classes until the end of their compulsory schooling and they can choose theoretical just as well as practical courses of study at the subsequent non-compulsory level regardless of choices made in the compulsory school.

Ever since the beginning of the period of reform in 1950, questions concerning differentiation and individualisation in the compulsory school have been a permanent subject for debate in Swedish educational policy. Delayed differentiation has been seen as one of the main points in the pursuit of equality. To bar most pupils from further theoretical studies and thereby from considerable sections of the more coveted labour market, as was done previously by selecting pupils when they were only 11 years old, was seen as one of the greatest deficiencies of the earlier system and its most "undemocratic" feature.

Postponement of the organisational differentiation of pupils came in several stages. During experiments with the new nine-year school in the 1950's most of the experimental schools divided the pupils from the age of 13 into different classes according to their choice of elective subjects. More often than not, foreign languages provided the basis for division. Pupils with two, one and (at that time) no foreign language, were separated. The pupils with two languages (there were even classes with three) normally also had more advanced courses in maths, physics, chemistry and Swedish and thus formed a kind of "realskola" within the framework of the experimental school. When the experiments were later evaluated by a commission appointed by the Government in 1957 under terms of reference from Parliament special attention was not paid to the problems in these positively segregated classes.

It was the remaining classes, the problems of the negatively differentiated pupils, that were found most urgent to solve. The result was a decision by Parliament in 1962 stating that eight of the grades in the nine-year school should be undifferentiated. Not until the final year were pupils to be divided into different lines, of which one was a preparatory class for the upper secondary school (9g).

By and large, there was political agreement in Parliament on postponing differentiation. The only ones that protested were secondary school teachers in the theoretical subjects. These teachers, however, did not receive support from any political party and it was therefore decided that differentiation should occur after the penultimate grade in the compulsory school.

In some respects the experiences gained from the first years of this transitional period were surprising. It had been forecast that about a third of the pupils in grade 9 would choose 9g, i.e. the theoretically biased line in the final year meant as a preparation for the upper secondary school. This proved to be wrong. After no more than two years, half of the pupils chose this line. Towards the end of the 1960's it was chosen by two pupils out of three. The system of division drawn up in 1962 fell apart. In the 1962 curriculum

there were eight lines of study divided into a humanities and general practical sector, a technical and practical sector, a social-economic and technical household sector and a commercial sector, in addition to the more theoretical, upper-secondary preparatory line. This system did not meet the desires of the pupils. The idea of having four demarcated subject sectors, each with a more theoretical and a more practical line, was certainly logical and consistent, but could not cope with the consequences of the free choice which had been laid down by law and set out in the same curriculum. The pupils crowded into the theoretically biased upper secondary preparatory line at the same time that certain other lines were chosen by so few pupils that they could not be organised. This applied only to the ninth grade, but the effects quickly reached down to grades 7 and 8 and thereby the free subject choice, which in effect thus became a differentiating choice as early as the seventh grade.

The swing towards the "theoretical" electives from grades 7 and 8 and towards the theoretically biased upper-secondary preparatory line in the final year, seems to have been caused by the pupils' desire to keep all their options open for subsequent studies at the upper secondary level.

It was obviously difficult to provide the pupils with free choice at the lower secondary level of the compulsory school and at the same time divide the pupils into different paths of study in the subsequent schools on the basis of other and more general considerations. Parliament found a solution to this in a new plan for the lower secondary level. The divisions within grade 9, and thereby in the entire compulsory comprehensive school, were abolished. This was done in the new curriculum introduced in 1969. In their place came the possibility of choosing from grade 7 between four optional subjects; a second foreign language (German or French), technology, economics or art. However, the main novelty lay in the fact that these four options were of equal merit in transferring to non-compulsory schooling after the compulsory school.

Thus the nine-year compulsory school became homogeneous throughout, which was seen as a victory for the pursuit of equality. But it was thereby also clear that problems concerning differentiation and individualisation had been passed over even more than before from the administrative and organisational sphere to that of internal instruction. The problems that had been focussed on in extending the period of compulsory schooling changed character, but they were not overcome (cf. 4.5.2).

4.2.5 The Pursuit of Equality through Individualisation

During the whole of the reform period, the Government and Parliament were well aware of the difficulties and adopted a number of measures to facilitate solution of the internal educational problems. One of these was the decision taken in 1962 on lower class division numbers, i.e. in effect smaller classes and greater possibilities of forming groups for instruction in elective subjects and for pupils in need of special instruction. Other measures after 1962 concerned a teacher-training reform at a new kind of teacher-training institute, intensified further training for teachers, development of teaching aids and intensified educational research and development on a broad front, not least in respect of curricula.

All these efforts have been aimed at reducing the difficulties that gradually became evident in connection with the extension of compulsory schooling. The gains that extension has provided for large sections of the population in the form of increased opportunity to educate themselves not only up to the age of 16, but also thereafter, however, have often had to be bought at the price of a certain degree of uncertainty about how education, instruction and studies should be organised for young persons in their early teens to benefit both the individual pupil and society.

Measures have been adopted to support and stimulate individualisation. Some of these have the character of resources for internal differentiation, e.g. alternative courses in mathematics and foreign languages in grades 7-9. These can be seen as the last remains of the previous system of division. The main advantage of the alternative courses is that they normally provide a better teacher-pupil ratio in those subjects. Their weakness is that it is by no means possible to satisfy the varying needs of individualisation in these subjects with only two courses. Moreover, the choice of alternative courses has proved to be socially conditioned: Among pupils of the same ability in mathematics and foreign languages, those from the so-called lower social classes tend to choose the easier alternative, while their socially more favoured classmates choose the more difficult one. There is also a large overlap in standard test results between pupils in the two courses. The system of alternative courses in mathematics and foreign languages is therefore more a form of organisational differentiation than a form of individualisation.

A further resource aimed at individualisation is special instruction. This was established in the experimental school of the 1950's, mainly in the form of classes for slow learners and classes for immature children. Special instruction within the framework of the compulsory school were further developed and considerably differentiated during the 1960's. Several

types were introduced, such as classes for slow readers, observation classes, classes for pupils suffering from motor handicaps, from impaired vision and defective hearing. In recent years the growth of special instruction has also taken the form of instructing individual pupils in a "clinic", while they otherwise remain in their normal class. The endeavour in recent years has been to integrate special and normal instruction in different ways, which means that individualisation has been sought within the framework of the class instead of by dividing the pupils into different groups. It is essential to note here, however, that the amount of special instruction in the compulsory comprehensive increased greatly up to the beginning of the 1970's. This was given particular attention by the SIA Enquiry into the internal working of the school, whose proposals also led Parliament to decide on new forms of subsidising measures aimed at promoting individualisation. Regardless of whether these measures are specified locally or centrally, it is of interest that other types of differentiation measures grew up within the extended compulsory school, parallel to the postponement of organisational differentiation of pupils in different paths of study. The extent of special instruction alone had grown to approximately 0,3 weekly teacher-hours per pupil in 1974, which means there was generally one special teacher to 3-4 other teachers.

The regulations about "teacher resource hours" in the 1969 curriculum, i.e. that in certain subjects and grades there were more teacher hours than pupil hours, meant a further step towards individualisation and away from organisational differentiation. Previously, these hours had been defined through regulations concerning division of the class into groups.

4.2.6 Effects of the Compulsory School on Equality and Integration between the Sexes and between Social Groups

In previous sections of this chapter, the policy of reform has been described with respect to measures aimed at bringing about equality through education. As is evident from these sections, greater social equality has been achieved if equality is taken to mean equal educational opportunity for all pupils regardless of social background, economic circumstances, place of residence, etc.

To this can be added a corresponding endeavour to attain equality between the sexes. Among the first measures that it was consistently sought to carry through in school and education in general was to open all kinds of education to both sexes and aspire towards recruitment of both male and female teachers and other members of the school staff. Separate girls' schools remained until the end of the

1960's, but they were abolished with the introduction of the compulsory school. Classes are now co-educational throughout.

A second step has been to provide the school with a set of subjects and courses without regard to sex. In the compulsory school boys and girls take the same subjects. Boys and girls are taught woodwork and metalwork as well as textile handicraft. Boys take the same domestic science courses as girls. They normally have gymnastics lessons together in grades 1-6, but this is less common at the senior level.

Most subjects taught in the school are compulsory. In grades 7-9, however, the pupils can choose electives for 15-20 per cent of the time. Here it can be seen that boys and girls often choose differently. Where the boys often choose technology, the girls often choose art and economics. The same applies to choice of studies in the post-secondary school after the age of 16. Girls are in the majority in the nursing, consumer and clothing lines of study, while the boys dominate in motor mechanics, electrical and telecommunications and practical engineering.

Thus so far, success has not been achieved in combining equality between the sexes and the principle of free choice. One of the tasks of study and vocational guidance is to provide information on further studies and occupations generally, but also to make the pupils' choice independent of sex ties. In principle therefore, free choice need not clash with endeavours towards a more even distribution of pupils among different lines of study and within different occupations. The difficulties encountered in practice in making choice independent of traditional ideas of masculine and feminine have recently led, for instance, to proposals for sex quotas. According to these suggestions, pupils of the minority sex (e.g. boys when it comes to nursing and other forms of care), should be given priority over the majority sex in selecting students, regardless of other qualifications in the form of school marks or other qualifying experience.

A form of quota system has been used on a trial basis at the post-secondary level since the autumn term of 1971. That is in pre-school teacher training. The men are tested in the main group applicable with regard to their previous education. Those who cannot hold their own in any of these main groups are tried in a free quota, where they are credited with supplementary points for their sex. The men then compete with other applicants in the free quota (for a description of the admission regulations for higher education see chapter 3.3).

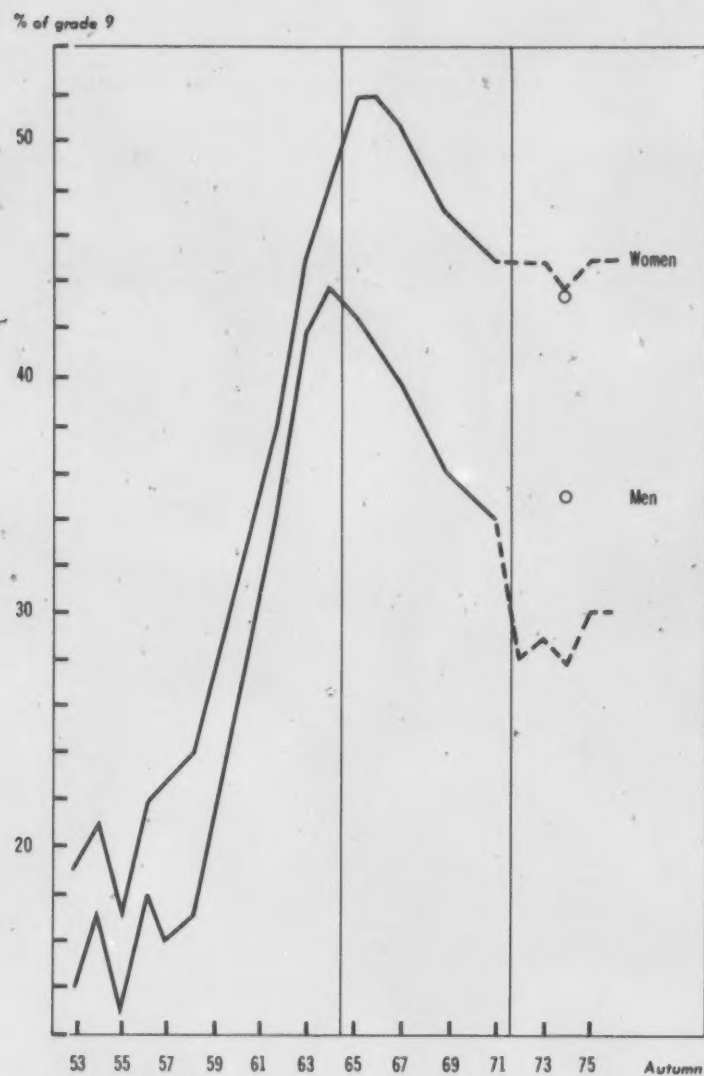
Extensive programmes for changing the traditional roles of the sexes within and through education have been drawn up by the central educational authorities (The National Board of Education and the National Board of Universities and Colleges) and are expected to come into force in the years immediately ahead. Proposed legislation banning sex discrimination has been drawn up by the Committee on Equality Between Men and Women.

An attempt is made in the following to describe the effects of the compulsory school on equality and integration between social groups and between the sexes.

During the 1950's, i.e. during the trial period when the transition from the parallel school system to the compulsory comprehensive was being prepared, the influx of pupils to the more theoretical study alternatives increased. The diagram below shows in broad outline the trend in choice of preparatory studies for the upper secondary school in grade 9 (Härnkviäst, Kjell, Det fria valet på grundskolans högstadium - motiv, tendenser och effekter. "Free choice in the senior level of the compulsory school - motives, trends and effects." Pedagogiska nämnden Report 1977/78).

¹ The Committee on Equality between Men and Women, attached to the Ministry of Labour, has seven members representing the five parliamentary parties. The main tasks of the committee are to propose measures for realizing the Government's policies in the field of equality, to stimulate and support the work for equality within government authorities and to work for the dissemination of ideas on equality between men and women in society.

Figure 1 CHOICE OF UPPER SECONDARY
PREPARATORY STUDIES IN GRADE 9



« Trial comprehensive »

Lgr 62 =
curriculum for the
compulsory school 1962

Lgr 69 =
curriculum for the
compulsory school 1969

Lgr 69 = --- B languages, special course

○ English and mathematics, special course
+ B languages general or special course

Sources : The National Board of Education's report on the experimental period, table 27. The Central Bureau of Statistics, memoranda 1974: 3, table 9, 1977: 15, table 14, IFP 1976:6, table 6.3.

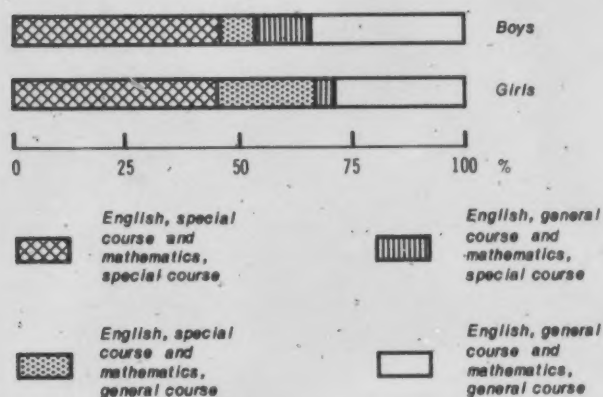
The sharp increase during the experimental period is an expression of the growing interest in theoretical education and a desire to be able to transfer to the upper secondary school. The upward trend is broken at the transition to the 1962 Curriculum. At the same time, the differences in frequency of choice between girls and boys become greater than they were during the trial period. That is because new alternatives were introduced that became far more attractive for the boys than corresponding alternatives had been before. The falling trend during the later half of the 1960's resulted from introduction of two-year general studies after the compulsory school (the continuation school). Part of the decline can also be explained by generally falling interest in theoretical study alternatives (cf. chapter 2.3).

With the curriculum reform of 1969, division into lines of study in grade 9 was abolished, i.e. the last remnant of a system of dividing pupils into different classes depending on what they were going to study. With regard to the degree that different groups of pupils have actually availed themselves of education, changes have proceeded slowly. Choice of course in the compulsory school, as well as high marks when leaving the school, are important to the choice of further studies.

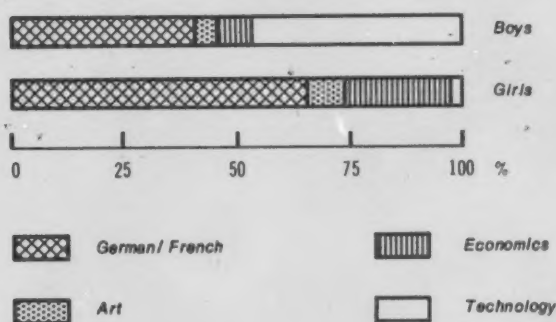
Differences between the sexes and between social groups in choice of course in the senior level of the compulsory school, are still great. Theoretically biased courses in the compulsory school offer the best prospects for theoretically biased studies in the upper secondary school. Choice of a theoretically biased course also keeps open the possibility of other non-theoretical studies after compulsory schooling. Choice in English and mathematics and of elective subject respectively is shown in the following diagram.

Figure 2 CHOICE OF ELECTIVE SUBJECT AND CHOICE OF GENERAL/SPECIAL COURSE IN ENGLISH AND MATHEMATICS IN GRADE 9 OF THE COMPULSORY SCHOOL IN THE AUTUMN TERM 1976, PER CENT.

CHOICE OF COURSE IN ENGLISH AND MATHEMATICS



OPTIONAL SUBJECT

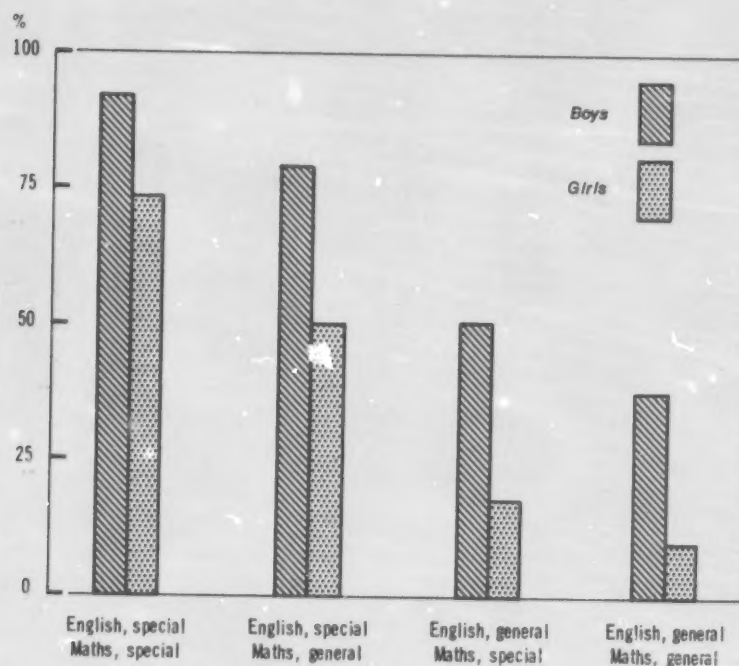


Source : *Trender och prognoser 1977 - befolkning, utbildning och arbetsmarknad*. Trends and forecasts 1977 - population, education and labour market. IPF 1977:1.

More boys than girls choose the special course in mathematics, while more girls than boys choose the special course in English. The choice of optional subject is more tied than that in English and mathematics. Nearly half of the boys choose technology, as opposed to less than one per cent of the girls. About 70 per cent of the girls study one of the optional languages in grade 9, while the corresponding figure for the boys is about 45 per cent.

Pupils with a theoretical bias, i.e. those that choose the special course in mathematics and English, normally study an optional language. See the following diagram.

Figure 3 PERCENTAGE CHOOSING AN OPTIONAL FOREIGN LANGUAGE AMONG PUPILS STUDYING VARIOUS COMBINATIONS OF GENERAL AND SPECIAL COURSE IN ENGLISH AND MATHEMATICS. GRADE 9 OF THE COMPULSORY SCHOOL IN THE SPRING TERM 1974

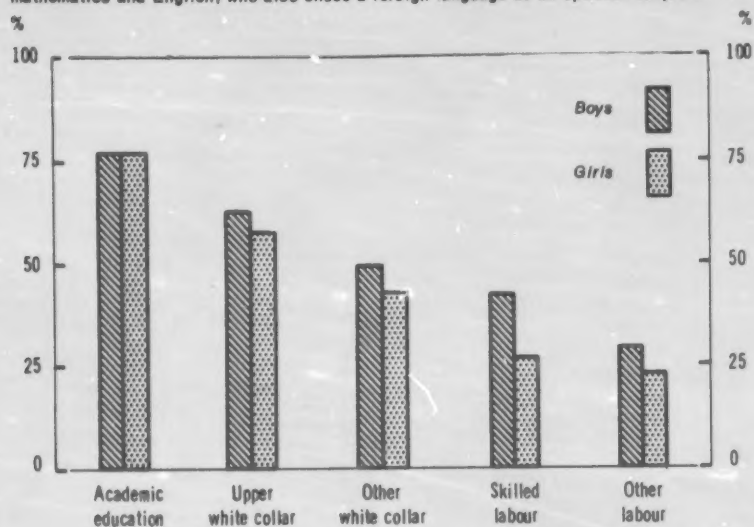


Source : Social bakgrund och övergång till gymnasieskolans 3- och 4-åriga linjer.
 • Social background and transfer to the 3 and 4-year lines of study in the upper secondary schools. Central Bureau of Statistics IPF 1976:6.

The most theoretical alternative, i.e. special course in English and mathematics and a B language, was chosen by about 40 per cent of the pupils in grade 9. The variation between different social strata is considerable. See the following diagram.

Figure 4 SOCIAL BACKGROUND AND CHOICE OF THEORETICALLY BIASSED STUDIES AMONG PUPILS IN GRADE 9 IN THE AUTUMN TERM 1974. PER CENT.

The columns indicate the percentage of pupils who chose the special course both in mathematics and English, who also chose a foreign language as an optional subject.



Source : Central Bureau of Statistics, IPF 1976:6.

The old system of parallel schools has been replaced by an implicit differentiation through the free choice. While some 75 per cent of the children of parents with an academic education opted for the most theoretically biased choice of studies, the corresponding figure for the children of unskilled workers is 25 per cent. More than 40 per cent of these later children take the general course in both English and mathematics, compared to 7 per cent of the children in families with an academic education.

The differences between the sexes reported above vary from one social group to another. The differences are greater among the children of blue-collar workers than among those from higher up the social scale. In university educated groups, where 90 per cent of the children choose a foreign language, the difference between boys and girls is small. Among the children of blue-collar workers, two girls out of three choose a foreign language, compared to one boy out of three.

The significance of the compulsory school reform for the choice of education after the period of compulsory schooling can be illustrated by what occurred to pupils born in 1948 and 1953 respectively. The following table shows competence for and transfer rate to the upper secondary school (3 and 4-year lines of study) for two extreme groups in regard to social background.

Table 1 Social background and percentage qualified for upper secondary studies, together with the percentage actually going on to upper secondary studies

	<u>Social background</u>	
	<u>Academic education</u>	<u>Unskilled labour</u>
Born 1948		
<u>(elementary school)</u>		
Qualified	90	25
Transfer	79	11
Born 1953		
<u>(comprehensive)</u>		
Qualified	89	30
Transfer	76	17
<u>Percentage difference</u>		
Qualified	- 1	+ 5
Transfer	- 3	+ 6

Source: Central Bureau of Statistics, IPF 1976:6

The total number of pupils going on to 3 and 4-year lines of upper secondary study increased from one-in-five of those in the older school system to one-in-four of the compulsory comprehensive pupils.

The greater part of the increase was accounted for by children from working class homes (see the table). The difference between social groups in regard to transfer to the 3- and 4-year lines of study diminished somewhat.

Data for a still longer period are given in the following table, which shows that the increase in the rate of transfer to the upper secondary school is primarily accounted for by higher recruitment from the working and lower-middle classes. The information has been commented on by the Educational Committee of the National Board of Education (pedagogiska nämnden) in its report for 1971/72 and 1972/73, published in February 1974.

Table 2 Upper secondary school entry rate as a percentage in different social groups broken down according to school marks (male pupils)

	born 1934	born 1948	born 1953
Mark: 3			
Upper middle class	36	55	75
Lower middle class	3	25	41
Working class	1	12	24
Mark: 4			
Upper middle class	65	88	97
Lower middle class	18	58	84
Working class	10	45	65
Mark: 5			
Upper middle class	85	100	100
Lower middle class	42	91	98
Working class	35	87	90

Source: Hårnqvist, K & Bengtsson, J:
Educational reform and educational equality
Report No 20 from the Institute of Education,
University of Göteborg, April 1972.

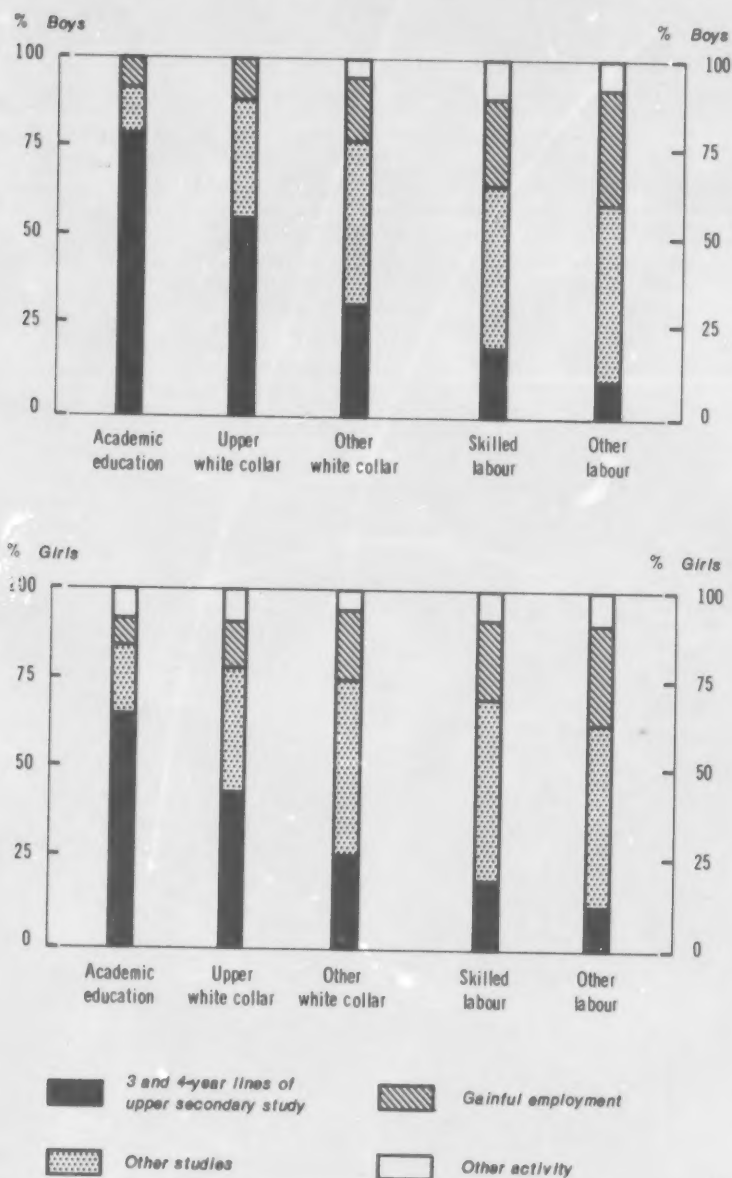
As the scales of marks for the three groups, referred to as 1934, 1948 and 1953 according to their year of birth, are not directly comparable, they have been converted by means of averages and the spread in the respective groups into a five-point scale with 3 as the average value. The comparisons thus apply to pupils at the same level above or below the average mark for their year. It has therefore not been possible to take any possible shifts in the general level into account.

Considerable differences between social groups in choice of upper secondary studies thus remain. The trend during a period of 20 years has led to the differences that originally appeared mainly between the upper middle class and the rest, gradually becoming more evenly divided between upper and lower middle classes on the one hand and the working class on the other. In addition, the differences have moved downwards on the scale of marks, so that social background now has greatest significance around or just above the average level, where the transfer rate was previously of very little importance.

It can also be seen from the table that there has been a high degree of success in removing social differences in recruitment to theoretically biased upper secondary studies among pupils with the highest marks. This success, however, has been at the price of greater social distinction in recruitment among pupils at lower levels of performance, a result, however, which is not evident from the table.

Thus even if the compulsory school has had certain levelling effects, the fact remains that social background is decisive for continued activity after the period of compulsory schooling. This is shown in the following diagram.

Figure 5 SOCIAL BACKGROUND AND ACTIVITY ONE YEAR AFTER COMPLETION OF STUDIES IN THE COMPULSORY SCHOOL, FOR PUPILS LEAVING IN 1972. PER CENT.



Source : Table 2.2:3 Central Bureau of Statistics, IPF 1977:1.

4.3 The Connection between Education and Society and Working life

4.3.1 Development of the Connection with Society and Working Life within the Compulsory School

The extension of compulsory schooling to the age of 16 had a natural basis in a need for greater knowledge and skills for all arising from the development of society. A second basic reason was the growing difficulty for young persons to find meaningful occupations outside the school. The extension of compulsory education thus had both a positive and a negative motivation. Right from the beginning of the experimental period, differing views were held on the compatibility of these two motives and on the strength of each of them. Raising the schoolleaving age for those youngsters who previously would have tried to enter the lower secondary schools ("realskolor"), was not considered a great problem. For the rest, those who were not previously school oriented, there were different opinions. On the one hand, it was asserted that the very thing these pupils needed was more theoretical schooling, just as much as their school comrades who were inclined towards theoretical studies, not least for the purpose of promoting equality. On the other hand, it was claimed that studies for these pupils should be more or less vocational if they were to appear meaningful. Various mixed intermediate forms of theoretical and practical training were also advocated.

Thus right from the start, the question of how education should be differentiated and individualised was associated as a matter of course with that of extending compulsory schooling. There were no simple dividing lines in these questions. Two extremes could be distinguished, however. According to one, there were grounds for a clear division between studies with a theoretical and a practical bias from the lower secondary stage, i.e. the studies primarily concerned by the extension of compulsory schooling. Advocates of this view were inclined to hold that the senior level of the new school should be divided into lines of study accordingly and that the division should be introduced with the transition from the class-teacher to the subject-teacher stage, i.e. between grades 6 and 7.

Advocates of the other extreme view did not want such a division. Classes should be kept together even in the senior section of the compulsory comprehensive. They should comprise heterogeneous groups of pupils and not ones specially destined for either theoretical or practical study. Selection of pupils for certain studies under the guidance of the school was also considered to involve such great risks for the individual child that the difficulties presented by heterogeneous groups were to be preferred.

The connection of the compulsory school to society was expressed primarily in the revised timetables and curricula. Instruction in social science subjects was increased, from the local studies of the lowest grades to orientation in questions concerning Swedish and international society in the highest grades. Social science was allotted a specific number of hours from grade 4 onwards throughout the school. Efforts in recent years to integrate instruction in social science subjects have not reduced the amount of such instruction. Study visits to various public institutions were introduced in the 1962 compulsory school curriculum as a compulsory feature.

The link with the working world was given natural expression in the final year of the new school. Vocational practice for pupils in the last grade was included in preparatory vocational instruction during the experimental period in the 1950s. In grade 8, i.e. the year before final division into separate lines of study, pupils taking non-theoretically biased studies could have 4-8 weeks' practical vocational orientation in local industry and commerce.

Reorganisation of study division in grade 9 from 1962, when Parliament took its final decision on the new school and its organisation in the final grade, brought a number of changes in the connection with society and working life. Instruction in social science including theoretical study and vocational orientation, was left in all essentials. Practical vocational orientation in industry and commerce was made a maximum of three weeks, but in return it included all pupils in grade 8. Previously, those choosing theoretical subjects did not have any vocational practice.

The change in the system of differentiation in the compulsory school from 1962 to 1969 has already been mentioned. As a result of dropping the division in the final year from 1969, the three weeks practical vocational work and study visits were for the most part postponed until grade 9, as it would no longer be followed by division into different lines of study.

A great responsibility for the connection with society and working life within the compulsory school has fallen upon the vocational guidance teachers. There were such teachers in all compulsory schools with grades 7-9 right up to 1969. The majority of them were class teachers who had undergone further training. They both taught social science, including theoretical study and vocational orientation, and arranged temporary trainee positions in industry and commerce for pupils in practical vocational orientation. This work was facilitated by the fact that they normally carried out half of their duties at the local employment services office. As a result of the 1969 revision of the compulsory school curriculum, one feature of which was abolition of the division

into lines of study in grade 9, part of the responsibility for study and vocational guidance has been transferred to the upper secondary school. Both schools, however, keep their special officials in this field (cf. chapter 3.6).

In general terms, it can be said that instruction on society and the world of work in the compulsory school was marked during the 1950s and 1960s by an endeavour to incorporate broader orientation in this field within the school programme and with the school as an institution. The school was furnished with it and was essentially responsible for it. In part, developments during the 1970s have been different. Not least as a result of public debate on "deschooling" and the school's supposed isolation, a greater amount of instruction has begun to take place in the community outside the school. Thus if the connection with society and working life was marked during the 1950s and 1960s by an endeavour towards "assimilation" with the school, the 1970s are characterised by "dissimilation", i.e. a transfer to the community at large of educational areas and responsibility previously regraded as the exclusive tasks of school and teachers.

4.3.2 Evaluation of Study and Vocational Orientation in the Compulsory School

Present proposals for the forms to be taken by practical vocational orientation arose in conjunction with the introduction in 1969 of the curriculum currently in force (cf. chapter 3.6). From reports and evaluations it has been clear in various contexts that PRYO, as it was designed, has not had the desired effect.

The pupils' choice of practical training positions has not changed to any appreciable extent in comparison with the 1960s. Their choice of establishment, of courses and paths of study still bear the stamp of traditional attitudes towards sex roles and of other prejudices.

The extended, and above all more deep-seated, contact between education and working life written into the 1969 Curriculum has proved difficult to realise in practice. PRYO often becomes a mainly organisational and administrative problem for the labour exchange and the school's SYO consultant. It then assumes the character of a detached phenomenon in the work of the school - regarded by the pupils as a welcome escape from school work and by the teachers as an equally welcome opportunity to conduct lessons with half a class.

The difference between the aim of PRYO and its realisation should also be seen against the background of the criticism the Swedish school was subjected to in the first half of the 1970s. The new curricula for the compulsory and upper secondary schools had not had the desired effect. In the compulsory comprehensive school pupils showed various symptoms of weariness and lack of motivation. The percentage

of dropouts rose. Fewer pupils sought entry to the upper secondary school than had been planned. The pupils showed the same ties to sex roles and social background as before in choosing courses and paths of study. Inquiries showed that many of the pupils not starting upper secondary studies had negative experiences of study in the compulsory school and therefore quite simply did not wish to continue. The growing unemployment among young people gave emphasis to the seriousness of the problems. It was pointed out that the extended and more theoretical schooling had meant that young persons were isolated from the community and working life.

Research had provided evidence that a permanent connection between the theoretical and abstract on the one hand and the practical and concrete on the other, is a necessary condition for learning. It was held that the present school is marked by teaching situations built around words. The teacher and many of the pupils do not speak the same language, making language one of the most effective mechanisms of being out-distanced, at the same time that this effect is the most difficult to prove.

It was also held that school is governed to too great an extent by the demands of higher education and not by the demands of working life. The traditional concept of knowledge was called into question.

A better balance was demanded between theory and practice. The school should be linked to the conditions prevailing in the area where it was situated and greater efforts were necessary to bring it closer to working life.

An enquiry was set up in 1970 to investigate how the working environment of the school could be improved and, above all, how pupils with problems in their school work could be helped. The enquiry's proposals resulted in a decision by Parliament in 1976. After this the National Board of Education was given instructions which included changes in working-life orientation in the compulsory school, follow-up activities within the area of study and vocational orientation and the introduction of local planning councils for cooperation between school and working life (cf. 3.6).

Working-life orientation now has a prominent position in study and vocational orientation, which has the task of preparing pupils for their life in gainful employment. The aim of study and vocational orientation is thus not only to provide a basis for the individual pupil's choice of studies and occupation, but also to provide the pupils with knowledge of working life in its entirety. Like study and vocational orientation in the broad sense, working-life orientation is a matter for everyone active in the school.

An overall evaluation of SYO activities will be made in 1979, i.e. 5 years after introduction of the new SYO organisation. A number of projects concerning various aspects of SYO have been underway to provide a basis for such an appraisal. The National Board of Education, which has overall responsibility for the evaluation, draws up situation reports every year. These are mainly descriptive and thus do not aim at true appraisals of the activity or proposals for change. An account can already be given of certain experiences gained during the years that have passed, however, without it thereby being possible to interpret them as any final conclusions.

Ever since the 1940s, the basic idea has been that SYO should be a joint responsibility for everyone working in the school. In reality, however, SYO seems most often to have become a matter for the SYO consultant alone. Information from headmasters, teachers and pupils as well as SYO consultants indicates that SYO integration hardly exists at all. This may be caused by many factors.

Insufficient knowledge of the goals of SYO and where these are expressed can be one reason. Knowledge about objectives is a necessary, if not sufficient, condition for integration. Another reason can be lack of information about how integration should be carried out. In turn, such plans presume close collaboration between SYO consultant, teachers and other school staff, which is complicated by their knowing too little about each other's field of activity.

Another main thought in the new SYO organisation was to decentralise decisions and their implementation to the local level. The situation reports show that the municipalities have seldom availed themselves of this opportunity. Analyses of problems and obstacles as well as evaluation models, which are a condition for local adaptation of resources, are largely non-existent.

Among the projects dealt with in the situation reports are also enquiries concerning expectations of the SYO activities. These investigations show that most categories, i.e. headmasters, teachers, pupils, etc. consider that SYO's main role is to provide information about alternative choices. The SYO consultants, on the other hand, most often emphasize the compensatory role of SYO, meaning that it should help make choice of study and career independent of such factors as social background and sex.

The widespread conception of SYO's informative function, coupled with an often very great work load on the SYO consultants, seems often indeed to have resulted in the SYO consultant having to give priority to factual information.

The evaluation of SYO also covers the upper secondary school. By and large, the experiences mentioned above therefore also apply to that school. There is naturally more to say with regard to the contact between the upper secondary school and working life. The upper secondary school, however, is not our primary evaluation area. In conclusion therefore, we should like only to mention experiences gained in the transition between the compulsory comprehensive and the upper secondary school or the working world. We refer to the measures taken in the SYO follow-up, which has been primarily concerned with unemployed school-leavers.

An account of these measures has already been given (cf. chapter 3.6). By way of summary, they can be grouped under three headings: education and training, practical training, or employment. After a 3-year trial period, the outreach activity of SYO with modified admission to the upper secondary school, has been a regular feature in every municipality in the country from the beginning of the 1977/78 academic year (cf. 3.6.2). After the initial difficulties, it seems to have adopted relatively fixed forms in those municipalities that have taken part in the trials longest. Experience varies, however, depending on different local conditions, such as the size of the municipality, the structure of the labour market and industry and commerce, density of the immigrant population and the extent of the upper secondary school region. It should also be pointed out that in many municipalities it is very difficult at present to provide employment for young persons. This means that they cannot be offered any real choice between education and employment. In such a situation the quality and variety of the education and training offered is particularly important.

One of the measures tried is establishment of shorter vocational courses. There is now an eight-week course called Paths of Study and Working Life in the upper secondary school, established to meet the needs of young persons without employment, who are uncertain about choice of education and career and/or have difficulty in gaining admission to the studies they wish to pursue. Experience of this has shown that a short, vocational course can be an attractive alternative to youngsters who are tired of school and are not attracted by the range of courses normally available in the upper secondary school.

For those young persons who can consider further education before seeking employment, there are now greater possibilities of satisfying their wishes.

Among other things, experiments are in progress in which rules governing selection and admission to the upper secondary school have been revised, account being taken not only of the applicant's formal qualifications, but an attempt being

made at a total appraisal of the individual with regard to his or her social situation and other factors. This work includes attempts to adjust the combined educational resources of society to the training desired by the applicant. This means that preliminary information on the number of applicants in relation to the number of places available can cause organisational changes so that room can be made for more applicants.

It is also possible for the SYO consultants to assist young persons with difficulties by establishing contact with the employment services office. Educational measures can be used here too, e.g. through orientation courses in Working Life and Education, which correspond to Paths of Study and Working Life in the upper secondary school, and through normal training courses organised by the labour market authorities.

Work within the local planning councils for cooperation between school and working life, which often plays a central part in the SYO follow-up work, also appears to have developed in a positive direction. From having initially applied primarily to technical and practical, organisational and administrative questions, the work has increasingly been concerned with content and problem-solving. Interest in the activity from various parties has increased. Both SYO consultants and other school staff have found the work of the councils to be of value. In the initial phase there were no representatives of pupils, parents and teachers in many planning councils. It has been found to an increasing extent, however, that the involvement of these groups is inevitable.

4.4 Participation and Codetermination in Education

4.4.1 Administrative Responsibility

One of the more important questions of educational policy during the 1950s concerned administrative responsibility for the educational system. The compulsory school was previously municipal. The secondary school was a state school. Municipal secondary schools gradually arose alongside the state ones, providing instruction right up to the matriculation examination. Vocational education was mainly a municipal concern from the start (sometimes within a county council) and was extended for pupils at the same age level as the state-run secondary schools.

A series of decisions by Parliament in the 1950s and 1960s brought the entire reformed educational system from pre-school up to university level under municipal responsibility. This was balanced, however, by a closely regulated system of state subsidies and by the fact that teachers on permanent

staff, municipal school managers and school superintendents were appointed by state authorities, including the County School Boards, state regional authorities set up in 1958. Certain schools also remained under state administration. These were certain special schools for handicapped children. Certain private schools, at the secondary level also including company training, have been of relatively limited extent in Sweden. In all, less than two per cent of the pupils at the compulsory schooling and upper secondary level have gone to private or company schools.

One of the most important results of the school reform was thus that the school system was municipalised. This was seen as one of the essential steps towards democratisation of education through greater local influence. The balance between state-central and municipal-local influence on development and design of the educational system has been a much debated subject in the 1960s and 1970s. It has been considered a duty of the state and its institutions to give the educational system a uniform structure. Uniformity has been regarded as a condition of equal educational standards. By and large, uniformity has been attained. As a result of the reforms of the 1950s and 1960s, town and country have the same school structure, urban centre and sparsely populated area have schools that provide the same competence.

What then has this uniformity led to? Critics of the reform have maintained that it has led to a fall in the level of educational achievement. Scientific investigations to illustrate the effects of reform in this respect are difficult to make. On the whole, Sweden acquitted herself well in the International Association for the Evaluation of Educational Achievement (IEA) project, which from 1971-1975 comprised the school systems in a total of nineteen countries and a comparison of the achievement of pupils aged 11, 14 and 18-19. From this, one is almost inclined to draw the conclusion that introduction of a uniform school system up to the age of 16 and a system integrating theory and practice for 16-19-years-olds, did not have the effect of lowering standards as feared by the critics. The reduction of geographical and social differences which has resulted in the variation of attainment between schools in Sweden being small, has thereby not had any lowering effect.

But another result of the IEA project should be added to this. The variations between high and low performance in Sweden as a whole with its uniform school system, appear to be still as great as the variations between high and low performance in countries such as England and Wales, Scotland, West Germany, Italy, the USA, Japan and Australia, where there is substantially less uniformity. The difference is that although the pupils in these countries certainly have the same variations in performance, the high performance pupils go to certain schools and the low performance pupils

to other schools. There are high and low performance schools in the other countries, just as well as high and low performance pupils. In Sweden, such schools are less distinguishable in this respect.

This leads to the following. From the point of view of the individual pupil, Sweden and other countries are equal. The extent of variation between high and low achievement are substantially the same. The standard of education can therefore be said to be substantially the same. Sweden differs, however, in that high and low educational performance are more evenly divided among the schools than in other countries.

It can be asked what greater participation and codetermination within the educational system have led to in Sweden. Obviously, one essential result has been achieved: the schools are quite similar, the variations between schools are small. It is equally obvious that any general levelling of differences between those with high and those with low performance, has hardly been attained.

4.4.2 Parliamentary Decision on Revision of the Internal Working of the School

It was generally felt in Sweden in the 1970s that educational policy measures adopted to iron out the differences in pupil performance - or at least reduce the pupils obvious shortcomings in knowledge and skills - have proved to be of limited effect as they have been given the form of generally operative rules.

These rules have been mainly concentrated in measures to assist those with low performance and the handicapped. They have allowed the establishment of classes for slow learners, remedial reading classes, classes for immature children and observation classes. They have also meant that it has been possible to set up special clinics in the school, where pupils could be sent for individual tuition for a limited period, without having to leave the class completely. In addition, it has been possible to make use of companion teachers for a number of pupils within the framework of normal instruction.

By the mid-1970s, different forms of special instruction were so developed in the compulsory school that there was one full-time special teacher to 3-4 ordinary teachers. These were among the problems on which serious discussion was started in the SIA Enquiry 1971-1975, an enquiry into the internal working of the school.

The extensive development of the Swedish school had provided greater opportunities for education for all, regardless of social background, geographical area and sex. After the

external organisation had been built up, attention was directed towards the internal work of the school, the conditions for learning, design of the learning process, and the working environment.

The Enquiry presented its proposals to the Government in 1974. Decisions were taken by Parliament in 1976 and 1978 after the proposals had been discussed in a lively and wide-ranging debate and circulated to appropriate organisations for comment, this providing a basis for the Bill introduced by the Government. The decision was also founded on the results of an enquiry into children's leisure activities.

The decisions primarily concern revised forms of work and a shift in responsibility for school activity from the state to the municipalities and the individual schools. Greater local influence and a larger measure of democracy in school should provide greater opportunities for those most closely affected to influence the work of the school, particularly in regard to forming the working environment and to assisting pupils with difficulties.

The decision by Parliament can be summarised under the following headings:

- Revised methods and forms of work
- Guidelines for revision of the curriculum
- Continuous school day - more varied content in school work
- Greater contact between the school and working life
- New system of state subsidies permitting decentralisation and greater local decision-making
- Greater democracy - new forms for making decisions permitting greater pupil participation and greater cooperation

The pupils should be provided with opportunities for meaningful activity during lengthy breaks and other intervals. School activity should thus not be limited to lessons. These should instead alternate and be tied in with other activities in cooperation with associations, clubs and local authorities. The term "school day" should embrace different forms of activity. Putting a rich and varied content into the school day will be an important task at the local level.

It is therefore important to have an overall grasp of the different local resources, both in school and the local community, with regard to cooperation with other municipal institutions and after-school centres (fritidshem), neighbourhood centres (kvartersgård), recreation centres (fritidsgård), schools of music, nurseries, libraries, sports grounds, park playgrounds, therapeutical services etc.

The overall objective of general leisure time activity should be:

- to meet the pupils' need for activity, social contact and cultural stimulation
- To disseminate knowledge about the activity of clubs and associations, culture and recreational activity in the municipality/local centre, and provide the stimulus for involvement and active participation
- to try particularly to interest those with low motivation and who are passive, in order to meet their need for stimulation when the school day is over
- to offer secure care for pupils, especially the younger ones
- to create a natural and relaxed contact with adults having experience of working environments outside the school
- to interest pupils of different ages and sex in the same groups and activities.

Emphasis was placed on the importance of associations and clubs taking part in the work of the school. The reason behind this is that involvement in such organisations means joining together around an idea, democratic training, comradeship and solidarity between people. It is therefore important that these organisations are allowed to conduct their activity with their own aims in view and be responsible themselves for recruiting instructors, for the form activities take and the methods used. The municipalities should therefore support and stimulate them in their work with school pupils.

Decentralisation is a cardinal point in the Act. Responsibility for the internal working of the school should rest on the individual school and the municipality. This responsibility includes organisation of measures to assist and support pupils with low performance or who require support and stimulation in some other way or for some other reason.

The Act means that decisions on putting pupils into different kinds of classes and the allocation of funds between normal instruction and instruction for pupils with special requirements, essentially rests with the individual municipality. The same is true of the teachers work for different groups of pupils.

This change is taking place partly through an alteration in the regulations for state subsidies to the municipalities. A distinguishing feature of the previous system was that state subsidies were ear-marked for certain ends. The subsidy was closely tied to the teaching resources. These in turn were based on organisation, form and volume of instruction.

The general operating subsidy to the compulsory school was thus calculated according to the number of established posts as headmaster, director of studies and teacher. In addition to this, state subsidies were paid for certain special purposes.

Under the new regulations, a certain number of pupils at each school unit gives a basic allocation. In addition, a supplementary allocation is made according to the total number of compulsory school pupils in the municipality. There are also state subsidies for certain other costs incurred in running the compulsory school, e.g. native language instruction and extra-curricular activity during the continuous school day. The County School Boards decide on the basic allocation to the municipalities for each school. The supplementary allocation is paid straight to the municipality for each pupil receiving a certain number of hours instruction and other special work a week. The County School Boards also have additional resources at their disposal which can be allocated to municipalities with special needs.

The new construction means that regional and local school authorities, headmasters, teachers and others working in this field have greater freedom and responsibility to allocate the resources on the basis of the goals, guidelines, timetables and curricula laid down by the state, in practical application in the field, without being bound by directives in every detail.

4.4.3 The Influence of Various Groups at Different Levels

The SIA Act thus transferred certain responsibility from the central level to regional and local levels, i.e. in the first place to the County School Boards and local school boards. The local level in turn can be divided into several levels where there can be more or less influence from those concerned. It is thus a question of which groups have influence over which questions and in what forms.

One factor governing the teachers' influence is the Act on the Joint Regulation of Working Life which came into force in 1977. The Act applies to all employees. It gives the employee the right to negotiate through his or her union and reach agreements on conditions of work, at the same time that the employer is obliged to provide information and enter into negotiations when changes are planned in the employees' conditions of work. The Act has helped strengthen the influence of teachers and other staff categories on decisions within the educational system, even if decisions on educational policy are always incumbent upon the state and municipality.

For the moment, experience of the application of the Act in the educational system is limited. It is likely to take some time before it is clear where the line is drawn between general interest and the interest of parties concerned, between what can be decided by democratically taken political decisions and what can be decided by negotiation and agreement.

The smallest unit in the local school structure where direct pupil influence is being tried, is the class. It is stated in the compulsory school curriculum that the pupils should be allowed to try to deal with and solve common questions in the individual classroom. There is an organised form for planning and decisions in the class, the class council. In addition, questions that the pupils are to help deal with in other consultative bodies in the school, are dealt with in the class.

No total appraisal of pupil influence in accordance with these guidelines has been made. If common questions are taken to mean how work is to be planned, however, it can be seen from chapter 4.5 that the influence of pupils here is limited. The dominant method of work is still instruction guided from the teacher's desk. The SIA Bill mentioned the importance of properly functioning class councils, indicating that progress had not yet been particularly great when it came to pupil influence.

Naturally, the influence of the pupils does not apply solely to their own class. There is also a need for contacts between representatives of the pupils and others in questions common to the school. In the vast majority of lower and upper secondary schools there are pupils councils, consisting of representatives of the class councils.

The participation of parents in the work of the school takes somewhat more forms now than previously. The traditional bodies for cooperation between the home and school are known as Home and School Associations, which normally are directed at the parents of all the pupils. Their activity is largely based on the efforts of a class representative, representing the parents in the separate classes. They arrange meetings between class teacher and parents. The pupils often take part in these class meetings as well.

Other examples of collaboration between school and parents are general parents meetings for a certain school level or grade, separate discussions between the teacher and the parents of each pupil, and what are known as "listening days" when parents are allowed to visit the school while instruction is in progress.

As opposed to the school staff, who have opportunities for influencing their conditions of work through the Act on the

Joint Regulation of Working Life, there is no such regulation for pupils and parents. The goals for influence from these groups are contained in the Education Act, guidelines etc., but the forms this influence should take are not regulated.

The following proposal has been drawn up by the Ministry of Education with the aim of increasing the influence of pupils and parents in the school. Local consultative and management committees should be set up at the level of a headmaster's district or individual school. They should be composed of pupils, parents and staff. They should have the right of decision in certain matters, while in others they are conceived of as having more of a deliberative and consultative function.

The proposal has been sent for comment to the authorities concerned. A decision may be taken during 1979.

4.5 Methods of Work and Educational Achievement

An account has been given in the previous section of the reforms carried out in the Swedish school system with an aim to realising the goals of equality, a closer connection with the community and working life, and decentralising decisions. It has also included experience gained of the effects of these reforms. The results achieved by the reform work as a whole have naturally also been influenced by factors outside the educational system and should be judged with reference to changes in Swedish society as a whole (cf. chapter 2).

An account has also been given in earlier sections of how the traditional concept of knowledge has been called into question. We have emphasized the importance of an all-round, social and personal development of the pupils. This does not mean that basic knowledge has been considered unimportant. Growth of knowledge and an individual's personal development are dependent on each other. It is a question of seeking ways of transferring knowledge that do not a priori make it difficult for certain pupils to follow the work in school.

Educational achievement is dependent on many factors. The method of working, however, is one of the most important. We have therefore chosen to devote a special section to it, 4.5.1. Certain achievements are reported in 4.5.4.

Analyses of achievement and methods of working are based on investigations, research results and other information primarily from the past ten years. Among other things there are international comparisons of educational achievement. These always suffer from certain weaknesses. Firstly, the comparisons have had to be limited to quantitatively measurable effects of the school's work. Secondly, these measurements have had to be limited to what the countries taking part

were found to have in common. In other words, comparisons of achievement in various fields of study cannot be made in those areas where each individual country has laid stress on specific national features. Neither, of course, can the investigations be used to judge achievement in Sweden before and after introduction of the compulsory comprehensive school.

4.5.1 Methods of Work

"The dominant form of instruction is whole-class teaching or collective teaching, where the teacher addresses himself to the whole class at the same time. ...It is thus a rather traditional picture we find of the teacher teaching from his desk and the pupils receiving instruction. ...If a closer look is taken at knowledge-providing behaviour it can be seen that the dominant activity is to pass on factual knowledge, to provide reports and descriptions requiring registration by the recipient. ...A picture summarising the teacher's "presentation" function would thus be: highly dominant collective instruction where questions and subject matter are marked by a cognitive content that can easily be reproduced. His control over the process is clearly expressed. There are only minor deviations from this pattern in certain categories in individual subjects."

The quotations apply to grade 6. They are taken from a survey of teaching structures in the intermediate level of the compulsory school. Didaktisk processanalys "Didactic Process Analysis" (Bidänge et al 1971, 1972).

According to the IEA investigations in English and French, carried out in 1971, instruction from the teacher's desk is also the clearly predominant method of working. (SÖ, FoU-rapport 22, 25, 1975).

A report entitled Instruction in Natural Science Subjects, How It Is and How the Pupils Want It, was published in 1977 as part of a project at the University of Umeå called Learning Structures and Methods of Work in Natural Science Subjects (IANO). The investigation, carried out among 343 pupils at the senior level of the compulsory school, showed that the pupils have little influence over the choice of subject matter and that instruction is governed to a high degree by the teaching aids. The teachers pay great regard to the goals set for knowledge in the subjects. A considerable part of the time is devoted to laboratory work, but this is often illustrative and does not represent an investigative method of work in the true sense.

The predominant method of working, as described in a large number of reports, cannot stimulate the development of the pupils' ability to think to a sufficient extent. In many cases it has a directly retarding effect. "The predominance

of adjustment-oriented values and a traditional style of instruction, the timetable divided into subjects and the often one-sided concentration of the text books on knowledge that can be easily reproduced, together with the poverty of the external environment and the lack of possibilities for active, constructive activity in it, are retarding factors."

(Hansson: Att befrämja kreativitet i skolan, Pedagogisk-psykologiska problem "To Promote Creativity in School. Psycho-pedagogic Problems, Institute of Education, Malmö 1974).

Process analyses of the work in the intermediate and senior levels of the compulsory school made later in the 1970s, indicate that the appraisals quoted above still apply (see for instance Gustafsson: Studies in Curriculum Theory and Cultural Reproduction 1. Classroom Interaction. MAP-gruppen 5, Stockholm 1977, and Lundgren: Studies in Curriculum and Cultural Reproduction 2. Model Analyses of Pedagogic Processes. MAP-gruppen 6, Stockholm 1977).

At the same time, development work has been in progress particularly in the mid and latter 1970s, that has completely changed the forms of work at certain schools or certain classes to conform more closely with goals and guidelines laid down for the school. The development has taken place partly with the backing of further training provided by the National Board of Education and the County School Boards and partly as an alternative backed mainly by groups strongly critical of established patterns in the school system.

4.5.1.1 Knowledge by Subject

With the introduction of the present curriculum in 1969, changes could be observed towards interdisciplinary arrangement of work, not least at the senior level. But these changes did not become stable. According to the questionnaire surveys among school managers conducted on repeated occasions by the National Board of Education during the 1970s (Undersökning rörande vissa organisations- och undervisningsfrågor i grundskolan "Enquiry Concerning Certain Matters of Organisation and Instruction in the Compulsory School") instruction in the various general subjects at the senior level, for example, has again become more subject-tied during the 1970s.

Subject specialisation is even more clearly evident from the Board's survey among teachers of natural science subjects at the senior level of the compulsory school in 1976. Two-thirds of the teachers had never taken part in a combined field of work where social and natural science subjects interacted. Those who had experience of it were as negative towards it as those who had not tried. Only 13 per cent of the teachers considered that the combined fields of study led to greater interest among the pupils. 80 per cent of

the teachers thought that teaching by subject should be predominant, but many considered that it could be interrupted at times by interdisciplinary instruction.

Thus despite many joint projects backed by further training, teaching by subject has been characteristic of the work in the compulsory school. It has been based to a greater degree on the systematic presentation of the various subjects in teaching aids than on conditions in real life. (Christianson, Utbildningens anknytning till arbetslivet "The Connection of Education to Working Life", SÖ 1978).

The arrangement of work has led to pupils having sectorised knowledge of various phenomena in reality that they have often found difficult to associate with their own experience. Knowledge of various facts has been incorporated to a small extent into mental constructions, theories, that the pupils have used in investigating problems and conditions in real life. The school has thereby done much too little to give pupils an overall perspective of their existence. Organisation of the senior school also contributes towards their regarding their existence as divided. This is the more serious as they live in a technologically highly developed society, marked by division of labour, specialisation and segregation by age.

4.5.1.2 Verbal and Abstract Instruction

Experiments and excursions have been given greater room in the natural science subjects during the 1970s. (SÖ, Enkätundersökning "Questionnaire Survey" 1976 76:2786). But seen as a whole, there are too few practical and concrete features in the instruction. It is verbal and abstract to a high degree. It is pointed out in a National Board of Education survey (LUG 1973) in regard to mathematics, for example: "Concrete material occurs very sparingly in the intermediate and senior levels. Despite the fact that the teachers at every level of the school consider work with concrete material valuable for low performance pupils... such material is used almost solely in the junior school."

There have been too few technical, practical elements in the work, as well as too little artistic activity. One of the reasons is the lack of collaboration between teachers in different fields of competence. Another, and probably more decisive reason is the view of what is important in school. Behind the constriction of concrete elements offering opportunities for perception training, lies a lack of insight both in the home and school into what concrete and sensual experience means for children's development. But in the last analysis the imbalance in school between practical and theoretical work is dependent

on society's attitude towards culture, where by tradition practical work is disparaged.

The pupils often have a great interest in practical elements in their school work. According to a recent investigation, the pupils liked handicraft best, but explained at the same time that they of course considered theoretical subjects most useful. (Nyman: Grundskoleelevernas intresse av skolans obligatoriska ämnen och dess lokaler. "The Interest of Compulsory School Pupils in Compulsory Subjects and School Premises." University of Umeå 1976).

4.5.1.3 Isolated Skill Training

As previously pointed out, training skills have had great scope in the compulsory school in the 1960s and 1970s. Instruction in the Swedish language, for example, has been characterised by critics as consisting largely of "isolated" skill training, i.e. training skills in isolation from a concrete connection to reality, from a content that is at all meaningful to the pupils and with the aim totally directed towards future use.

Since the beginning of the 1970s, discussion of the development of skills has been concentrated on various concepts of basic skills. Despite the great emphasis on developing skills, large groups of pupils, mainly from the working class, have not learnt to utilise language and mathematical skills that they are dependent on both in school and society at large. The conclusion can undoubtedly be drawn that isolated skill training, even in large amounts, does not result in all the pupils acquiring basic skills in Swedish and mathematics. On the contrary, it often acts as an obstacle to the development of their ability to communicate.

The concept of basic skills has also been confined in an unfortunate manner to mean primarily simple skills of a technical nature in Swedish and maths. Insufficient consideration has been paid to the fact that the ability to communicate is developed when working with others to create or understand meaningful subject matter. This means the possibilities of learning by doing have not been utilised in all school subjects, i.e. of developing the language by using it.

4.5.1.4 Content and Language Adapted to the Middle Strata of Society

The pupils come from socially, culturally and economically different groups in society. Their conditions of life outside school have a great effect on their ability to take part in the work of the school with success. Cultural habits in the home affect the ability of pupils to take in cultural transfer in school. There is reason to believe that a

lack of coordination between formal learning in school and informal learning in the home creates learning block-ages right from the earliest school years in the form of a lack of self-respect, identity crises and alienation that prevents many children from making use of their ability to learn.

Working class children seem to be affected by contradictions between school and home life to a greater extent than other children. The content of school work, the manner in which it is performed and the general way of doing things in school conform more closely to the abilities, needs and conditions of life of those pupils from the middle strata of society than of others. On the other hand, pupils from the working class meet their culture more seldom and more seldom have an opportunity of dealing with their own experiences in school. The linguistic climate would also seem to favour pupils from the middle strata in particular.

4.5.1.5 The Influence of Pupils on Planning their Work

Studies illustrating how pupils can develop their ability to take responsibility for how work is arranged have been carried out in a project entitled "Student Democracy" (Bjerstedt, Bjerstedt, Studerandedemokrati - medplanering på olika utbildningsstudier: några rapportsammanfattningar. Lärarhögskolan i Malmö 1973. Pedagogiskt-psykologiska problem, nr 218, "Student Democracy - Co-planning in Different Educational Studies: Some Report Summaries"). The account given of situations in the junior and intermediate levels showed that to a large extent it is the teachers themselves who take the decisions. They are most restrictive to pupil influence in decisions concerning instruction, but even in matters concerning order and general well-being, decisions are mostly taken by them. The pupils have the greatest possibility of influencing decisions concerning amusement and recreation. Pupil influence on the work of the school has increased somewhat during the 1970s. This applies particularly to the influence exercised through the students' councils (cf. 4.4.3). Often, however, there is such a gap between the pupils and their representatives in the various consultative bodies and also between the pupils' representatives and the administration, that the influence of pupils on their work is fairly weak. At the same time, effective forms of cooperation have been developed at many individual schools.

The development towards effective cooperation between teachers and pupils has often passed from teacher control through pupil control to cooperation in a democratic spirit.

4.5.1.6 Reasons for the Lack of Compliance between the School and the Recommendations and Proposals in the Curriculum

In the main, school work is thus characterised by:

- o instruction controlled by the teacher from his desk
- o knowledge divided into subjects
- o verbal and abstract presentation of knowledge
- o lack of association with the pupils' experience
- o isolated skill training
- o content and language more in keeping with the middle strata of society than the working class
- o low level of pupil influence

It can be stated without hesitation that the development the present curriculum was considered to promote is difficult to distinguish in the above pattern. Some of the reasons will be discussed here:

The place of the school in society, its organisation, the system of state subsidies, timetables and syllabuses, with supplements, have acted as too narrow a framework to stimulate the work of development, or even allow room for it.

The powerful wave of technological thinking in the 1960s, based mainly on Skinner's theories, had a great and prolonged influence on teaching aids and teaching systems. The industrial process and the scientific experiments with what could be guided, controlled and reproduced, were thus regarded as ideals for the teaching process." (Forsknings- och utvecklingsarbete i moderna språk. En översikt. Research and Development Work in Modern Languages. A Review. SÖ 1977).

The school began to function quite mechanically, with uniformly constructed courses for everyone. Methods-materials systems were developed in modern languages and mathematics. The part played by the individual teacher diminished in importance. The control exercised by teaching aids increased in most subjects.

The inheritance from the lower secondary school ("realskolan") in the former parallel school system influenced the content of instruction mainly in the senior level of the compulsory school. (Ex Andersson. Science Teaching and the Development of Thinking, 1976) Both the teachers' training and the pressure exerted by the expectation of public opinion on the school, worked in that direction. A statistical view of what is important knowledge has prevented adjustment to current and future needs of knowledge.

Many teachers felt - and still feel - there is a conflict between the overall goals and the goals for knowledge in

specific subjects. With regards to methods of work, the demand for concrete, experimental arrangement of work and a stringent formation of concepts is opposed to interest-controlled planning of interdisciplinary studies. (SÖ, PM om grundskolans naturorienterande undervisning, 1978

"Memorandum on Instruction in Natural Sciences in the Compulsory School") The goals for knowledge in specific subjects have governed the work throughout.

4.5.2 Problem Areas in Public Discussion of the School in the 1970s

The picture of the inner working of the school provided by an analysis of content, methods of work and organisation should be related to three concepts that have recurred increasingly often in public discussion of the school in the 1970s and which reflect a negative trend: discipline problems, dislike of school and rapidly increasing special instruction.

Discipline Problems

Teachers in the senior level of a compulsory school in a municipality outside Gothenburg stated in a questionnaire survey made in 1976 that disciplinary measures of various kinds occupied nearly 23 per cent of their working time. This would mean that the teacher is occupied in dealing with disciplinary problems nearly one-and-a-half terms of a pupil's time in the senior school. The survey was very limited, but it is an example of the fact that discipline problems are great, not only in metropolitan regions but also in the countryside. (Sundström: Rapport från en ö. "Report from an Island" UKU project 2, Gothenburg University 1976).

School Weariness

Studies were made in 1970 and 1971 of the attitude towards school of grade 8 and grade 9 pupils in Örebro (Örebro-projektet, 1971 "The Örebro Project"). The studies showed that girls were happier in school than boys. Among the girls in grade 8, just over 10 per cent of the girls stated that they had seldom or never been contented in school, compared to just over 20 per cent of the boys. In grade 9 the figures were barely 10 per cent for the girls and 15 per cent for the boys. The percentages of girls and of boys stating that they had sometimes been content with school were fairly similar in the two grades, while the percentage of boys stating that they had been content for the most part or always is just over 40 in grade 8, compared to almost 60 in grade 9. The corresponding figures for girls are just over 50 per cent in grade 8 and 65 per cent in grade 9.

The Regional Unit for Educational Pilot Projects (Pedagogiska utvecklingsblocket) at the University of Uppsala published a report intitled Trött på skolan "Weary of School" in 1972.

About a quarter of the pupils in the group studied express clearly negative views with regard to contentment in school (going to school is dull or very dull). The report emphasizes, however, that the negative pupils include a number who declare a positive attitude in other respects related to contentment, e.g. on whether school work is meaningful. It is not unlikely that expressing dissatisfaction with school is a norm among certain groups of pupils. It is not regarded as compatible with the role of the pupil to think that going to school is fun.

The report states that most pupils (85 per cent) consider they have been contented in school during at least some period of their time there. More than half of them have remained contented into the senior school.

About a quarter of the pupils in grades 8 and 9 would have a more or less strong desire to leave, if school were voluntary. Compared with studies made in the 1960s, the figures indicate lower motivation than before. It is pupils of high ability who would like to remain in school to a greater degree than others, even if it were voluntary.

The IEA studies showed that Swedish pupils were generally more critical of their study and working conditions than pupils in other countries. In several cases, interest in the content of the instruction was remarkably low. The concept of "school fatigue" has become a reality during the 1970s for large groups of pupils, both among those who can manage the instruction in school and among those who are unsuccessful. For some, it leads to truancy or terminated studies.

The National Board of Education carried out a study, in the spring of 1976, of pupils who had not completed their compulsory schooling. The study included all pupils who would normally have completed grade 9 in the spring of 1975, but who had incomplete compulsory schooling in different respects.

Approximately one pupil in twenty leaving the compulsory school belongs to one of the six categories included in the study. That means about 5,500 pupils (5.5 per cent) out of 100,000 in the same grade. Expressed as percentages of the total number in a senior school grade:

- about 0.8 per cent are excused school attendance
- about 0.7 per cent stop studying as soon as attendance is no longer compulsory
- about 0.2 per cent stop studying without permission (total truancy)
- about 1.2 per cent are repeated truants and marks are not given in certain subjects in the final leaving certificate from the compulsory school
- about 0.8 per cent receive special instruction during grade 9 for psychological reasons
- about 2.8 per cent have reduced course of study in grade 9.

A comparison of the different types of regions was made in the study. The results show that to stop studying without permission from school and special instruction for psychological reasons are more common in metropolitan regions and larger towns and less common in sparsely populated areas.

The sexes are unequally represented in the group studied. There were 64 per cent males and 36 per cent females in the group as a whole.

A large part of the group (82 per cent) have had some form of special instruction in the senior school. Most common is experience of coordinated special instruction (29 per cent), special instruction for psychological reasons (16 per cent), classes for slow learners (10 per cent) and observation classes (8 per cent).

A connection between exaggeratedly abstract presentation of knowledge, the lack of association with the pupils' practical knowledge of society or to their current needs of knowledge, for instance, and signs of disliking school, are not difficult to find. But neither is it difficult to find a connection between teenagers' school fatigue and problems in society. Violence, use or abuse of alcohol and drugs, discrimination, loneliness are other problems that naturally affect attitudes towards school.

Special Instruction

The difficulties reflected in the above account did not lead in the first place to a general revision of the content, working methods and organisation of instruction, but to an increase in special instruction.

Special instruction was established in the experimental school of the 1950s, primarily in the form of classes for slow learners. It was extended considerably in the 1960s at the same time that it was differentiated. Several types of special classes were introduced, such as remedial reading classes, observation classes, classes for pupils suffering

from motor handicaps, impaired vision and impaired hearing. The number of special classes grew during the early 1960s but then decreased in favour of coordinated special instruction. This means that pupils receive instruction from special teachers in clinics or in the normal classroom at the same time that the rest of the class are taught by their class teacher. Special instruction is offered to pupils certain hours a week in one or two subjects. Owing to the fact that coordinated special instruction has had a flexible organisation, severely handicapped pupils have been able to receive instruction in ordinary classes to a greater extent.

The number of teacher-hours of special instruction per student increased up to and including the 1971/72 academic year, but has since remained at just over 29 hours per 100 pupils. On January 1, 1972 The National Board of Education laid down that a maximum of 30 hours a week per 100 pupils could be used for special instruction. In one week in April 1975, 22.5 per cent of the pupils received some form of special instruction. This means that 35-40 per cent of the pupils receive special instruction in some form and to some extent during a school year.

The extent of special instruction has varied greatly between different parts of the country. In recent years, however, this has been levelling out.

The main reasons given for the great increase in special instruction are the difficulty to individualise within the framework of the class, and changes in society leading to social and emotional disturbances in the pupils and in their home environment.

Reasons for the growth in special instruction can also be given in other terms. Fixed limits have meant obstacles to the development of the inner working of the school so that it corresponds to the pupils' needs in an undifferentiated school. The increase in special instruction represents a differentiation measure that replaced the possibilities for differentiation offered by the former parallel school system.

4.5.3 A Revised Method of Working

The analysis of content, method of working and organisation of the school shows predominant features connected with problems such as school fatigue and discipline problems. These in turn are symptoms of the pupils' lack of motivation.

If we are striving for a school where the pupils' motivation constitutes an essential basis for the activity, content and methods of working should be developed so that they become meaningful to all pupils. This is a necessary condition if we are to reach those goals, including those in respect of basic knowledge, that society has set for the school.

"The school should provide all pupils with a basic education comprising such skills and knowledge, habits, attitudes and values as are of significance to their personal development and to their possibility of influencing and living in contemporary and future society and to function there as gainfully employed persons and citizens" (Curriculum for the Compulsory School, p. 12).

Despite extensive special instruction and strong emphasis on training skills throughout the compulsory school, groups of pupils leave school without a mastery of those skills that form a basis for further development seen from the view of life contained in the lines quoted above from goals and guidelines for the compulsory school, laid down by Parliament in 1969.

Instead of learning to read, write and add so that they can master both their own daily existence and educational requirements, considerable groups of pupils have learnt through continual failure to be resigned, passive, and to mistrust their own ability. For them, school has meant a poor start to life.

Developments during the past ten years have clearly shown that measures such as an increase in isolated skill training or of special instruction, do not give the intended results. A thorough review of the entire education, content, method of working and organisation, is therefore required.

Content

Isolated skill training in Swedish and other subjects must be replaced by work in which pupils practice and develop skills and which has a meaningful content. The content must be more closely connected with reality. It is a matter of proceeding to a greater degree from the pupils' perceived needs and problems and their relevant experiences.

With reference to earlier analysis it has been asserted that the content of work must be chosen so that it proceeds from the orientation of all pupils in the world about them. Working class children must also have the opportunity to utilise and further develop their knowledge of conditions in society to a greater extent than at present.

The work means great demands on knowledge. But it also means demands for a reappraisal of the view of knowledge. In the traditional view of education and learning, the intellectual side has often been overemphasized. Facts and memorised knowledge in the theoretical subjects have always been highly valued. Such knowledge is also easy to handle in that it is relatively simple to evaluate. Lifelong learning demands an allround effort from people, implying emotional involvement, an ability to cooperate, a sense of artistic values and

physical performances, apart from knowledge. These elements should not be seen separately, so that different individuals represent different elements. Neither should we construct a contradictory relationship between growth of knowledge and personality development. They presuppose each other in the individual.

The Method of Working

The necessary changes primarily concern:

- individualisation and cooperation
- joint influence and joint responsibility
- investigatory and experimental work
- problem approach

The method of working must also give pupils an opportunity to take advantage of the heterogeneity of the class, i.e. to teach and learn from each other. By and large, this is still an untapped resource in the compulsory school. Since the mid-1970s, however, "paternal" activity with cooperation between grades and different levels in the compulsory school, as well as work in heterogeneous groups in class, has given many pupils and teachers experience of mutual instruction. (Cf. Dave, Reflections on Lifelong Education and the School. Hamburg: UNESCO Institute for Education, 1975).

The concept of individualisation must be expanded or reinterpreted. It has often meant situations where the pupils work alone on tasks of the same nature as the other pupils. It should mean to a greater extent than at present that pupils may choose content, methods and goals. Work in heterogeneously composed groups could then be a support for individualisation to a greater degree.

Work in school must develop the pupils' communication skills. It must provide opportunities for perception training at work and play with different materials. More room should be given to artistic means of expression. Pupils need more time for creative work of their own, in words, pictures, sound and movement, and they need to learn to receive and interpret what others have created.

Work should also be based on concrete observations and practical investigation of conditions in real life to a completely different degree than at present. The amount of manual work should be greater. At the same time, the endeavour should be for all pupils to learn to deal with theoretical concepts and theories explaining conditions and phenomena. This applies not least within the natural scientific and technical fields, where the need for measures to be adopted at an early stage, is considerable.

Organisation

In the main, change in the organisation of school work should follow the following principles: it should counteract the divided and inflexible situation that leads today to lack of motivation in teachers and pupils. It should also make it easier for teachers and pupils to plan and carry out the work together. An organisation in working units increases the possibilities of cooperating, and in so doing of bridging traditional subject boundaries.

In the group, class, or work unit, teachers and pupils can plan their work together, evaluate results and processes, and consider the pupils' development. Local, recurrent evaluation and subsequent planning should guarantee that resources are used so that pupils with difficulties receive assistance through special instruction and other means.

Organisation of work must also be adapted to local conditions to a higher degree. Pupils should take part in planning their studies and in organising the activity of the school in general. In the long term, this implies realistic possibilities of planning the work so that it corresponds to the needs and capabilities of different pupils.

By helping to organise the work of the school, pupils receive training in democracy. They acquire experience, knowledge and the linguistic practice that can lead to their being confidently able to influence their situation in the working world, take part in the cultural life of society and influence decisions on public matters, after leaving school.

Development work in this field has also involved cooperation between pupils in different classes, grades and school levels. Experiments have been carried out in which pupils have taken the responsibility, together with the staff, for part of the work in dining rooms, workshops, libraries, etc. A general feature of this development work has been planning in conjunction with or between teachers and pupils. The pupils' interest in the work has grown, and with it job satisfaction among both pupils and teachers.

The desirable changes in content, manner of working and organisation described above, conform with the decisions taken by the Government and Parliament to reform the internal working of the compulsory school. They are also based on the requirement analyses and deliberations undertaken by the National Board of Education in reviewing the compulsory school curriculum, as charged by the Government. The Board's proposals for revising the curriculum were presented in April 1978.

4.5.4 Educational Achievement

4.5.4.1 General

Extensive studies of the standard of knowledge in school in different countries were carried out in the 1960s and 1970s in the International Association for the Evaluation of Educational Achievement (IEA) project. The studies covered both the compulsory and upper secondary schools in Sweden. In all essentials, they could disprove the opinion often put forward in the early 1970s that the standard of knowledge of pupils in the Swedish compulsory comprehensive and upper secondary schools was lower than among corresponding groups of pupils in comparable countries. The conclusions were rather that the Swedish pupils more than held their own. In general, the best pupils also had as good results as the best pupils in industrial countries with parallel school systems.

The surveys also showed, however, that the educational achievement of groups of pupils was not good enough to meet their needs. A clear connection was shown between pupils' standard of knowledge and their social and economic conditions. Pupils from the middle strata of society demonstrated throughout more knowledge than those from the working class. Some of the results for pupils in the compulsory school and, in one case, the upper secondary school, are summarised below. They are taken from the latter part of the IEA project. The data were collected in 1970-71.

4.5.4.2 Comparisons between Countries

With regard to the level of knowledge in English, the study was carried out among pupils in grades 7 and 8. Reading comprehension, oral comprehension, written and oral work were tested. In general, the Swedish pupils scored second highest or highest average points compared to those in other countries.

In natural science subjects, the study showed that average performance in grades 3 and 4 is above the corresponding level for most other industrialised countries. In grades 7 and 8, on the other hand, the average was somewhat below that of other industrialised countries taking part. The differences between industrialised countries are relatively small. Differences in knowledge between the sexes are considerable at the senior level, being greatest in physics and least in biology. Special methods of analysis showed a large spread in the standard of knowledge among children in the same grade.

The reading and literary comprehension study comprised tests in reading comprehension, vocabulary, reading speed, and literary comprehension.

As a whole, Swedish pupils occupied an intermediate position in the international comparisons of reading ability. The Swedish 10-year-olds reached a higher average level and thus performed better in reading comprehension than the pupils in any other country, which may seem surprising in view of the fact that our children start their compulsory schooling a year or two later than children in most other countries. If an explanation is sought, there are several to choose from, among them: a strongly uniform school system, relatively small social differences, a generally high standard at home that gives the children a good start before they go to school. The balance is restored by our 14-year-olds and upper secondary pupils, whose results are at the same level, or not infrequently below that of several other countries.

With regard to literary comprehension, the performance of Swedish children was low by international standards. The average score of the Swedish 14-year-olds is lower than in other comparable countries, with one exception. The performance of Swedish upper secondary pupils is about average.

The study of social science and social science outlook was made in the spring of 1971, with pupils from ten countries taking part. Taking part from Sweden were pupils in grade 9 and in the then continuation school (2nd year) and the "gymnasium" (3rd year). The results of the grade 9 pupils were not included in the international comparisons. The Swedish upper secondary pupils come out well in comparison with those from other countries.

The study shows a considerable increase in knowledge from grade 9 in the compulsory school to the final year of the "gymnasium" and continuation schools. The results indicate, however, that the grade 9 pupils would also have done well in comparison with those of the same age in other countries.

Alongside the study of knowledge of society, values included in the concept of social science outlook, were gauged. It can be said by way of summary that compared to pupils in the other countries taking part, Swedish pupils:

- have pronounced anti-authoritarian attitudes
- have a very positive attitude towards civil rights and liberties
- are just under the international average in their confidence in the interplay between politicians and public opinion
- have the most positive attitude of all towards equal rights for women
- together with New Zealand, have the most positive attitude towards equal rights for different groups in society

- have relatively little confidence in the possibilities of natural science improving human conditions.

4.5.4.3 Comparisons between Schools within Countries

The IEA survey of literary comprehension among 14-year-olds in 1971, shows that schools in Sweden are more mutually equal than the schools in other countries. By schools in Sweden is meant headmaster districts. On the other hand, the variations in results are comparable to those of pupils in other countries. The inter-school variation accounted for 15 per cent of the total variation in Sweden, while in the other countries studied it was 25 to 31 per cent. A low figure indicates that the school variation is small compared to the variation between individuals.

The IEA study in natural sciences also indicates that the Swedish schools are more mutually alike in educational achievement than schools in other countries.

Despite the previously mentioned limitations in the way the studies were planned, it is interesting to note that within a group of comparable countries and in some of the school's most central subjects, Sweden has the greatest parity of educational standard among schools within a country. If it is noted at the same time that Sweden probably has a more "uniform school system" than the other countries, there must be a definite connection between uniformity and parity at the school level. The uniformity achieved by reforming the school would thus have led to an even standard. It should be noted, however, that the spread of results among the pupils is about the same in Sweden and other countries. Thus high and low achievement are fairly evenly spread in Sweden's relatively uniform school system. The same rate of high and low achievement can be found in countries with a more varied school system, such as England, although high achievement is more often found in certain schools, low achievement in others.

These results have also been confirmed by studies carried out in recent years, including an enquiry into the relationship between school, state and the municipalities (SSK-utredningen). One of the studies carried out by the enquiry compared standard test results in grade 6 in Swedish, English and mathematics in seven counties. The differences between the averages for each county were very small. The averages for municipalities within the counties varied somewhat more and the differences between individual schools within the municipalities were greater still. There are clear indications that classes and schools where the children are mainly from the middle strata of society have a more favourable environment for the development of knowledge than classes and schools where the children are mainly from the working class.

This latter circumstance has been specially studied in a National Board of Education project known as the "School Segregation Project" at the department of sociology at Lund University. Classes in six municipalities were studied. Selection was governed by the desire to have classes composed of children with markedly different social backgrounds. Two extreme groups, each comprising 31 classes in grade 3, were compared. One group consisted of classes in which 75 per cent or more of the children's parents belonged to the upper middle or lower middle classes. These were termed "high status classes". The other group, the "low status classes", had 75 per cent or more of the children from working class homes. (B. Andersson, G. Arnman and I. Jönsson, Barn i segregerade skolmiljöer "Children in Segregated School Environments", University of Lund, Department of Sociology, 1977).

The comparison is illuminating in many respects. The "low status classes" had more immigrant children, lower marks and test scores, and a larger proportion of low-performance children than the "high status classes". There was also more coming and going among pupils. Their teachers had less experience and changed more often. The special instruction rate was also relatively lower among the low-performance children.

The results have been consciously polarised by contrasting two sets of extreme classes. The comparison nevertheless demonstrates in what respects the standard of education is uneven and thereby what sort of measures are pressing and possible. It can also be seen from the study that the same municipality can have both types of classes and thus every reason not only to discuss, but also make a reallocation of resources with the aim of assisting those most in need.

Smaller studies in individual municipalities point in the same direction: growing differences in educational attainment not only between classes but also between schools and school districts.

It was research reports of this nature that led to the stipulation in the 1969 curriculum for the compulsory school saying that an effort should be made to bring about classes with an all-round social composition. The possibility for schools to follow this instruction is limited to the same extent that it is at the same time endeavoured as far as possible to provide every area of habitation with a school of its own and also to follow instructions on keeping the class together as it moves through the grades. The discrepancies in social structure between schools and classes that result from this are not based, as far as the National Board of Education has been able to see from the studies made, on any conscious social segregation in school, but on the fact that

the residence structure varies. In this respect, the school reflects the society around it.

Results of this kind show, however, that firstly and most importantly, attention should be paid to the consequences of different types of community planning, not least for the children's education, and secondly that a certain reallocation of resources should and can be made, or certain assistance measures adopted, to mitigate the negative effects of a general stratification of society. Decentralisation to local bodies of the responsibility for allocating the supplementary resources, is a necessary, if not always sufficient, condition if the standard of education is to be more equal. (cf. 4.4.2).

4.5.4.4 Comparisons between Pupils

As mentioned earlier, differences in the results of different pupils in the IEA achievement tests are roughly the same as in other countries. In English, the survey shows, for example, considerable differences within the two alternative courses. The best performing pupils in the general course (the easier) achieve better results than the weakest pupils in the special course (the more difficult). Both in the general and special courses, teachers have therefore faced the problem of teaching highly heterogeneous groups, a problem that may have been further accentuated by the fact that instruction from the teacher's desk has been the predominant manner of working. (SÖ, FoU-rapport 19, Engelska som främmande språk "English as a Foreign Language", 1975).

The spread within the various courses is confirmed by Swedish studies in connection with drawing up and trying out standard tests.

On several occasions exactly the same test has been given to pupils in general and special courses respectively, both at the senior level of the compulsory comprehensive and in the two-year upper secondary school. The overlap between courses is great, so great that the best pupils in the general course are above the average for the special course and the weakest in the special course below the average for the general one. It can be noted that the span in the special course is throughout as great as in the general course, something which has not always been noticed. This can be interpreted to mean that choice of the special course is determined less by the individual's capabilities than by his ambitions and general study environment. This in turn can mean that the choice of course is conditioned by the pupil's social background. Children from higher up the social scale would accordingly tend to choose the special course even if they are weak and would therefore be better off choosing the general course. At the same time, children from lower down the social scale would tend to choose

the general course regardless of their capabilities.
(Aktuellt från skolöverstyrelsen, Special Issue, February 1970).

Other achievement studies of compulsory school pupils carried out in the 1970s follow the same pattern, with very few exceptions. There is a clear connection between achievement and the pupils' social and economic conditions. This is also reflected in the school marks statistics. Pupils from the middle strata of society attain higher marks more easily than pupils from the working class.

By tradition, skill training has occupied a strong position in school. Its significance and extent were greatly accentuated during the 1960s and early 1970s. It was aimed primarily at training separate reading, writing and arithmetical skills and other techniques.

That the difference in achievement between pupils is great can be seen from a local study carried out as part on the research and development undertaken by the National Board of Education. (H. Grundin, Läs- och skrivförmågens utveckling genom skollåren "Development of the Ability to Read and Write Through the School Years", SÖ-Foll 20. Stockholm 1975).

A good many pupils in grade 5 had better reading comprehension results than the average pupils in grade 12, i.e. the third year of the upper secondary school. But a considerable number of pupils had worse results than the average pupils in grade 3.

The same study showed that 15 per cent of the pupils in grade 9 had worse results than the average pupils in grade 6. This attracted great attention when the findings of the study were published as the average result in grade 6 was declared to be the lowest acceptable standard for those living in an industrialised society of Sweden's character.

The study gave unambiguous examples of both low performance and the connection between performance in school and pupils' socioeconomic background. "The difference in level between pupils from the upper middle class and pupils from the working class is already great after the first year in school and remains great throughout the compulsory school". (Grundin p. 81 op.cit.). The study should be interpreted with caution, however; as it was primarily concerned with technical reading and writing skills that were tested in haste.

The same tendency is shown in other studies of skill development in mathematics (the PUMP project) and Swedish, during the 1970s. According to the IEA study of reading ability, for example, domestic background explains a large part of the variations in performance. "To judge by the grade 3

results, pupils from lower down the social scale get a very poor start in the school's reading instruction and even if there is a degree of levelling by grade 4, the differences in the senior school remain very great. Pupils from favoured homes attain as good results as early as grade 7 as the intermediate groups first attain in grade 9 and children from the least favoured homes do not get further, even at the end of their compulsory schooling, than the intermediate groups in grade 7" (Hansson, Svensk skola i internationell belysning II. Läsning och litteratur "The Swedish School in an International Light II. Reading and Literature", p. 155). An exception is the project Fri skrivning på grundskolans mellanstadium "Free Composition in the Intermediate Level of the Compulsory School" (SÖ-FoU rapport 52, 1978).

A group of researchers at the University of Gothenburg have evaluated mathematics teaching in the Swedish compulsory school in a number of reports from the PUMP project (Processanalys av Undervisning i Matematik/Pyskologiskt "Process Analysis of Instruction in Mathematics/Psycholinguistics").

One report deals with arithmetical skills. Instead of studying relatively uninteresting average values and solution rates the researchers studied the pupils arithmetical ability and certainty in using the four arithmetical methods. It is held that a pupil who makes more than one mistake in four work tasks cannot be considered to have sufficient precision in calculation. The report shows that 17 per cent of the pupils in grade 6 make at least one mistake in four addition sums, 39 per cent in grade 6 make at least one mistake in four subtraction sums, 55 per cent in grade 6 make at least one mistake out of four multiplication sums and 47 per cent in grade 6 make at least one mistake in four sums or cannot do division at all.

A proposal for improving arithmetical ability is to spread the learning of arithmetic over the whole period of compulsory schooling and allow to build up a satisfactory knowledge of tables before they start work on sums.

The National Board of Education's guide Basfärdigheter i matematik "Basic Skills in Mathematics", was published in 1973. It contains a description of suitable subject matter for the lowest performing fifteen per cent among the pupils. The guide has resulted in publication of basic textbooks for this group by some publishers. In the senior level of the compulsory school, the general course textbooks are being increasingly replaced by these books. Despite everything, this is perhaps a fortunate development ensuring basic skills among this group before more advanced mathematics is dealt with.

Any list of basic skills must include numerical arithmetic. The part played in mathematics by pure arithmetical skills, however, must be seen in the light of the contribution they make to a person's ability to use mathematics in everyday life. Arithmetical skills alone contribute very little to a person's ability to be an active citizen. But in combination with other skills, they give the beginner a basic mathematical ability that he or she will need as an adult. The pupil's ability to reason in different situations must then be developed in mathematics teaching.

It should also be noted in this context that at the same time that society is changing, our ideas of what should be included in the concept of basic skills are changing. By way of example, mention can be made of the fact that ability to use mini-calculators and other electronic aids will be given increased importance.

In the review of the curriculum now being prepared, it is proposed that alternative courses in mathematics in the senior school be dropped and that priority be given to training basic skills. Individualisation, backed by allocations from the supplementary resources, can be carried out within the framework of the class or working unit.

A considerable change is needed in classroom work. At present, instruction in mathematics in Sweden is highly traditional. If the teaching aids now increasing their share of the market are studied, they display great similarities to the textbooks used in the 1960s or earlier. There is little sign now of the lively experimental activity in respect of new subject matter and forms of work characteristic of the 1960s. A mathematics lesson consists mainly of class instruction led by the teacher, with elements of individual skill training comprising solution of preproduced examples. In future, the problems they are to work on should be largely formulated by the pupils themselves, in conjunction with the teachers in the teaching team, and their classmates. In that way, the work will be rooted in reality to a far greater extent than now. Pupils will then presumably regard basic skill training as meaningful, as they will have opportunities to use their skills in a sensible context.

This revised work from the point of view of reality, will concentrate on problems rather than traditional subject structures. It requires interdisciplinary arrangement, entailing a clear need for cooperation between different expert knowledge.

4.5.5 Summary

A partly critical examination has been made in this chapter of methods of work and achievement in the compulsory school, against the background of certain described goals of

educational policy. The measures that have been adopted have led only in part to the social levelling aimed at. The first to take advantage of the new opportunities in the 1950s and 1960s were often children from already favoured social groups. Where they had previously seen themselves shut out by high requirements, they now found an opening. It can be seen from chapter 4.2.6, however, that continued application of this openness also gradually led to a certain change in recruitment to sought after courses of study after compulsory schooling. However, it took 10 to 15 years in Sweden before the "reserve of talent" from lower down the social scale began seriously to take advantage of their new opportunities. The greater influx to theoretical and other coveted studies has thus substantially benefited children of the working class, if with a certain delay.

This levelling has both taken time and been of modest extent. The previously so optimistic belief in "equal opportunity" has thus, at least in part, fallen into disgrace. This is one of the basic reasons behind the shift that can be observed in the meaning of the concept of equality, between the 1950s and now. Equality cannot be limited to equal opportunity to compete. Neither does it mean that everyone receives the same or similar education. Only in one respect does it have equality between individuals as its object, namely that everyone should acquire a general and basic civic competence, a skill in functioning as active and contributory members of society, which means that the school has a responsibility to provide everyone with basic linguistic skills, a grounding in natural and social sciences, technical and practical skills and above all a confidence and assurance of his or her own intrinsic worth and possibility of further improvement through lifelong learning.

This emphasis on basic skills and basic knowledge recurs more and more often in definitions of the concept of equality. Everyone has a right to education that meets his or her various needs of basic knowledge and skills. School and society have an unequivocal responsibility in these respects. But how individuals develop beyond this, which is also a responsibility of society, is less concerned with equality. Individuals become qualitatively different, but not necessarily in terms such as better-worse, more-less. Equality becomes synonymous with freedom from deficiencies in basic competence.

If the school is to promote this kind of equality, a redistribution of resources is required, a rearrangement of priorities for the benefit of those in need.

In some respects this concept of equality implies a reassessment, but at the same time a necessary and more precise clarification of a concept that until now has been unclear and lacking in uniformity. This lack of uniformity and clarity has often arisen from not deciding whether equality

should concern simple standardisation or equal evaluation of different entities. Its realisation presupposes new relations between central, regional and local educational bodies, as well as between school and society at large at different levels. Decentralisation of the right of decision and responsibility for the school's development must never be so constructed, however, that it leads us back to the structural inequalities that it has been desired to reduce through the educational reforms. Decentralisation must not thereby lead to greater risks of unintended regional and municipal inequalities when it comes to possibilities of realising the overall educational goals.

5 THE REFORM OF BASIC HIGHER EDUCATION

5.1 The Area of Investigation

The term basic higher education has been used in the title of this chapter in order to underline that the focus of the OECD examination is on the educational programs at the undergraduate level according to the 1977 Swedish reform as designed by the 1968 Education Commission (U 68). This means that problems of postgraduate training or research are not included in the analysis except when the new reform in a direct way does affect those areas.

As has been touched upon already in the preceding chapters, one of the main features of the 1977 reform is that all types of postsecondary education form a unitary system with regard to planning and resource allocation. It is true, from an administrative point of view, that there still exists a separate part of the college system which is run by the county councils and the municipalities parallel to the ordinary state administration. The decision implies, however, an amalgamation of the municipal colleges into the state system in the future, and the overall planning of it is already now an integrated part of the planning within the new National Board of Universities and Colleges. Thus the term basic higher education does in this connection mean all types of postsecondary programs up to the first degrees as a basis for professional work or for entrance to research training programs.

5.2 The Objectives of the Reform

The basic aim of the Swedish higher education reform is to design an administrative system for a continuous self-renewal of universities and colleges in order to make them better correspond to the general goals. As was pointed out in chapter 1 there are similarities in the goals of compulsory schooling and higher education. This is true of the goals that are focussed on in this report; the pursuit of equality, the need to relate education to working life and the participation in educational matters by various groups in society, which we may call decentralization of decision-making.

In the reform some goals have been defined as general goals. They are the promotion of social equality, recurrent education and wider access to higher education. It has already been underlined that it is sometimes difficult to make a distinction between ends and means since goals are more or less general. Thus a subordinate goal may be regarded as a means of fulfilling a more general aim. Yet the following more concrete aspects of expected changes should be regarded as partly independent goals, albeit of a subordinate kind, since they at the same time contain elements which are part of more general policy changes in society. This is particularly the case with the efforts to decentralize planning and administration, to

increase democracy and public influence in the society's decision-making processes, to promote flexibility in resource allocation and to make prudent use of limited resources. Among the more specific goals are also the principles that all postsecondary programs should constitute a basis for professional work within a certain sector of society, i.e. occupationally oriented, and that all programs should have research connections and form at least part of a basis for postgraduate studies.

5.3 The Reform Cycle and its Implications for an Evaluation

As indicated above the 1968 governmental Education Commission (U 68) has been the most important planning agent behind the reform. Its main report was published in 1973 (SOU 1973:2). The issue, which also included proposals from some other commissions, especially on the new admissions scheme (SOU 1974:71), was treated in the Swedish Parliament on two occasions, 1975 and 1977 (Bill 1975:9 and 1976/77 respectively). The first parliamentary decision was prepared by a special planning commission (U 68-beredningen) in which some new organizational devices, especially the regional boards, were proposed partly by way of a compromise between the main parties involved (DsU 1976). The details of the final decision in 1977 were in turn prepared by another special planning commission (H-75, 1976).

The reform was effective from July 1, 1977. This means that the whole reform for the present moment is in an early implementation stage. In this connection the following two things should be heavily underlined

- 1 The main goal of the reform is to create better conditions for a continuous self-renewal of Swedish higher education in the long run according to the basic principles of the rolling reform strategy, discussed above. This is to be done through a new system of administration and planning, which under certain conditions are expected to be superior to the preceding administrative structure in meeting the problems of the future.
- 2 Some parts of the reform cannot be expected to result in immediate effects. This is particularly the case with the new admissions scheme. Effects of changes in that respect are most probably highly cumulative, so the true outcome cannot be studied until after some years' time. Since student flow also has been affected by the ongoing debate and by preliminary plans, the early stage of a reform might give rise to a number of unexpected and sometimes also quite irregular patterns of behaviour among applicants, partly due to accumulated demands of different kinds, for which there has been no

outlet. It should also be emphasized that effects of the reform in the admissions scheme should not be expected to take place only within the college system; on the contrary, also the student flow at the secondary level of education will probably be affected to a great extent.

Consequently, the Swedish higher education reform does not at present readily lend itself to any kind of summative evaluation. Even present trends in different respects may be poor indicators of the long-term effects. Several irregularities should rather be expected due to typical difficulties which are always connected with big, all-embracing structural reforms. Thus there are risks in relying too much on early information. Therefore, for the present moment the main interest should be focused on the establishment and design of a follow-up program. The criteria to be used are of interest, the time-horizon and particularly, what are the underlying assumptions and their place in the reform cycle.

To take an example, this means that it is not meaningful to expect any changes in the enrolment pattern of, for example adult students with a non-traditional educational background only because of the reform as such, unless certain definite steps are taken to offer them courses appropriate to their general situation and on sufficiently stimulating terms, either with regard to contents, forms of distribution or financial support. In turn, according to the preconceptions of the 1968 Education Commission and the Parliament, such an active planning policy was not expected to take place, unless there was an active participation in the planning policy by the new external representatives for various target groups on the many new boards. So the one precondition is a more or less necessary step before the other. In the example chosen, active external members may, however, be necessary or at least helpful, but not necessarily a sufficient condition. Another, more crucial condition might be the activities of the staff of the new boards and their ways of supplying the members with relevant information of high quality. If so, even passive members might take progressive decisions, although they are in the hands of good experts, at least as long as they really act on a high level.

It is no doubt true that the new reform has been subject to criticism because of the risks for bureaucratization, especially with regard to the new regional boards which represent a new organizational level in higher education. This should, however, be discussed in relation to the choice between a binary and a unitary model and with respect to the goals of decentralization to be treated more fully in a later section.

Some parts of the reform were preceded by various kinds of experimental activities. This was, for example, the case with an early version of the new admissions scheme, which was applied to parts of the old system. Correspondingly, different ways of promoting external studies have been tried during some years in certain areas.

Some of these activities have been subject to evaluation studies, which might give a hint about possible shortcomings, failures and successes of the reform. Due regard should, however, be paid to differences in total situation. Rules of admission might, for example, have good chances to succeed in certain "safe" areas, often chosen for the experiment or during the first years of operation when the so-called reserve of talent among adults still is relatively untapped. Also the reverse may be true: An early experiment may encounter special difficulties, e.g. due to lack of information or failing support in some areas which may be more favorable in the total reform setting. Considerations like these call for a system of information which at least at times follows up the various aspects of the reform as a supplement to specific evaluation studies. Thus the ordinary planning processes must be able to rely upon a feedback of information, up to now often collected in the forms of separate evaluation projects.

5.4 The Context and Changes in the Contextual Conditions of Higher Education

5.4.1 Introduction

Every assessment of an educational system as well as of reform must consider the total social, economic and cultural context in which the system operates and in which the reform is intended to take place. This quite trivial and obvious fact is, however, often overlooked in practice. This is done both in planning and evaluation, e.g. when enthusiasts recommend a small country just to take over an administrative solution which might be tailor-made for quite different conditions. But the general context and specific environmental conditions may vary also within a nation. Thus there may be considerable differences between regions or between various sectors of the economy or both. In such a case, statistical grand totals are poor indicators both of status and changes. For similar reasons it might also be unfair to judge the whole reform only from the point of view of a specific part of the educational system concerned. Finally, there are time-changes both of a long-term and short-term character, affecting the general economy and/or more specific parts of the educational system in various ways.

This is not the place for any lengthy description either of the general context of Sweden or of specific changes during the last decade. The importance of context deserves, however, to be underlined before we take any further steps in the analysis, since the point often seems to be neglected in the general debate.

5.4.2 International Comparisons

Context differences in an international perspective might give rise to quite different conclusions, e.g. with regard to the relationship between undergraduate training and research. Attention to the importance of factors like population size and density, as well as institutional traditions has recently been drawn by Swedish evaluators with respect to the basic organization of external studies in higher education (Dahlblöf, 1977). Thus, the Open University might be a good solution for England, while Sweden in certain relevant respects has much more in common with countries like Australia and Canada than with countries like the UK and the USA, countries which often dominate the debate. In a similar way the discussion about a binary or a unitary system has also to take various context components into account. A plea in favour of a division between universities and colleges or in favour of élite universities might have quite different meanings when applied to conditions within the U.S. and U.K. than to Sweden and Norway. Both Sweden and Norway are small and in many economic and social respects similar countries. Yet Norway has recently chosen a binary system for its higher education and Sweden has just taken a deliberate step in order to unify its administration and planning of various institutions at the corresponding level. From the point of view of comparability the cases of Sweden and Norway might be of greater interest than other comparisons.

The considerations about context and comparability put forward so far are not intended to be used as a defence against criticism from abroad. They imply, however, that any discussion of reform steps taken in different countries will profit from a concern for the specific characteristics of the nations involved. As a matter of fact, the U 68 Educational Commission has been criticized for having made its proposals without very much concern for international trends. That criticism may be justified; but it does not necessarily imply that a general review of present trends in different countries would have ended up in a quite different solution. It would, probably, have been useful if an analysis had been done of pros and cons connected with alternative solutions in an appropriate, comparative perspective already at the planning stage.

5.4.3 Intranational Conditions in terms of Regional Differences and Variations between Sectors of the Economy

As regards international conditions the regional differences, especially with regard to the accessibility of higher education, might offer quite different opportunities for a policy of social and regional equality. Sometimes, national statistics analyzed beyond grand totals may hide real progress in strategic but less populated areas. Conditions also vary between sectors of the economy with regard to occupational

structure, social and educational stratification and tradition etc. This means that a general principle even might lead to divergent practical consequences when applied to various parts of the system. Thus the principle of occupational orientation may mean additional course contents related to occupational practice in most programs of the liberal arts; while it may lead to a much broader range of subjects and contents than before in other areas, e.g. in education within the health care sector. To make judgements of the reform only from the standpoint of the faculties of the liberal arts and the social sciences from which most of the criticism emanates, is quite simply not appropriate.

On the other hand, if differences between sectors are great, if it is easy to distinguish between sectors and if it is regarded as desirable to keep these differences or even to develop their profiles at the same time, arguments could of course be raised against a unitary solution. This points to the importance of the total economic context and to political priorities. A unitary solution and a unifying policy might be appropriate when sectors are distinguishable but not too wide apart and when there is a need to overbridge sector differences and to promote interdisciplinarity across sector boundaries. If this is the case, steps should be taken in order to prevent the planning, administration and evaluation from becoming an entirely internal activity within watertight sector compartments.

5.4.4 Changes over Time in Society at Large

Context varies in time also within a small nation like Sweden. This is most drastically illustrated by the conditions prevailing at the start of the U 68 Planning Commission and when its main report was published five years later. In the beginning, Sweden suffered from problems created by the student explosion and partly also by the student unrest, although only to a moderate degree by world standards. At the end in about 1973, there was a quite dramatic decrease in the number of new entrants, especially into the faculties of arts and science. Simultaneously, great changes in the structure of the student body took place in favour of an increase of adult students. These changes in enrolment situations were sometimes taken as an argument against the reform proposal published in 1973, just as if the commission had not adapted itself to the changed conditions. Such a criticism was also justified to some degree for quite trivial reasons: proposals must by necessity rest upon the information available yesterday, since it takes time to work out consequences and also to print. The point is, however, that the new system aimed at a greater flexibility in the planning procedures than before. Now, five years later, the enrolment numbers are back again to about the same general level although structural changes seem to persist.

Changes in enrolment patterns do of course reflect trends in the general economy, although the relationships may be somewhat complex. The labour market conditions are no doubt of great importance. They sometimes cause fluctuations in the demand for various types of education far beyond the changes themselves. Sometimes a change in the pattern of retention of teachers, i.e. the degree to which teachers tend to stay in their teacher position, causes far-reaching effects on the intake to the teacher training programs as well as for prospective teacher candidates with regard to realistic alternatives. The professional markets are narrow, and for linguistic reasons there is almost no possibility to use other countries as labour market bufferzones. Often the perception of the situation and its alternatives is more important than available labour market statistics. Social policies of income redistribution through high progressive taxation may act as a deterrent to enrolment in higher education. On the other hand, adequate financial resources which are a result of policies of study financing may increase enrolment.

Also, changes in recruitment patterns of enterprises and within the public sector, with training as an alternative to formal qualifications, may affect enrolment patterns. Within the civil service formal eligibility rules for positions were changed which probably contributed to a depreciation of the status of a basic university degree as an entrance ticket to a good standard of living. The degrees to which incentives are offered for taking up postsecondary studies cannot be neglected (cf. Anderson 1974).

The life at universities and colleges is affected by changes in the society outside these institutions. Almost simultaneously with the reform but formally quite independent of it, a new law was passed on security of employment (lagen om anställningsskydd, LAS). Another general reform about employee participation in administrative decision-making also creates changed conditions for higher education. In essence that law might be seen as the big branch of the same tree from which the new rules are stemming about student and external representatives on various boards.

Another general trend is the striving towards an increased equality between men and women in society at large and especially on the labour market. A policy of equality is now under implementation in higher education, based on a series of reports from a working group within the National Board of Universities and Colleges. That report highlighted the traditional skew distributions between the sexes in various fields of study and especially the tendency among women not to take up postgraduate studies to the same extent as men. The roots of these tendencies are, however, mainly to be sought in earlier educational experiences. Although the problem belongs to actual current reform issues, it cannot be said to have played any role for the decisions about a new organizational structure in Swedish higher education.

5.4.5 Changes in the Career Pattern of Secondary School Students

Apart from the new group of adult students - a fact which will be discussed more in detail later on - some changes in career patterns are connected with the popularity of different programs within higher education. There is no doubt that studies at schools and institutes of technology and at the science faculties in recent years have lost many of their applicants. The basis of this development is to be found at the secondary school level, where the number of new entrants to the science line has decreased considerably. Moreover, the drop-out rates from the science line of the secondary school have been much greater than in others. In 1974 only 66 per cent of the entrants to the science line completed their studies in that line of the upper secondary school, while the corresponding figure for the social science line was 110 per cent, which meant that many of the science drop-outs continued on that track. The National Board of Education has tried to stimulate the enrolment to the sciences by means of adjusting the scale of marks to the fact that average achievements are higher in the natural science line than in others, thus letting competition for admission to higher education take place on a more equal basis. That incentive has not yet created any great increase in the enrolments, but in 1977 74 per cent completed their studies on the science line compared with 98 per cent on the social science line. Partly, this problem is also associated with the career choices of the female students and probably also with the balance with respect to curriculum demands on the other lines of study in secondary school. Thus the 1960 secondary school planning commission expected that the relative number of female students in the science line should increase from 30 to 50 per cent between 1962 and 1970. In 1976, the figure is still higher than 43 per cent. A corresponding increase was expected in the technology line but from only 4 up to 15 per cent in 1970. In 1971 the actual figure was only 7 per cent and not until 1976 did the enrolment of women in the technology line reach the level of 10 per cent.

It is difficult to trace the roots behind this development. Some people point to the new compulsory school, but it is very doubtful if this is accurate. Several of its curricular changes have been made in order to make the science studies more attractive for girls, more related to real-life problems and to a greater extent resting upon laboratory work and the pupils' own direct contacts with the realities. The 1964 secondary school reform also aimed at making science more attractive among girls. Besides, the old division between a biological and a mathematical branch was cancelled, and only one science line was created with quite ambitious curricula in mathematics and physics. This might have deterred many among the potential new groups, but it is still doubtful if the source of this planning failure is to that great extent

to be found within the school system. Another explanation may be that the intake capacity of those lines of higher education which require knowledge corresponding to the sciences and technical lines in upper secondary school has doubled. Furthermore the civil engineer's line in higher education is less prestigious now than earlier.

5.4.6 Some Examples of School Reform Effects on Higher Education

The school reforms at lower educational levels have been accompanied by quite considerable structural changes in the curricula which have changed the curriculum balance. Even though a change in the timetable for a group of subjects on a given occasion seldom amounts to more than one or two hours per week, they may have a strong cumulative effect. When they do, higher education is affected both in terms of the students' basis of knowledge and skills and in terms of the teaching-learning situation.

The school reforms affect the educational system mainly in two ways. Firstly, the transition from a selective upper secondary school system with an early and socially biased selection to a general comprehensive school results in a general broadening of the enrolment basis for upper secondary education after grade 9. It also results in a much greater general heterogeneity of the classes at the compulsory school level not only in subjects common to all students but also, to a slightly less degree, in subjects where optional courses are offered. At the upper secondary level, too, a general broadening of the enrolment has taken place with regard to the students' social background and performance level. This has an effect on higher education.

Secondly, deliberate steps to modernize the curriculum in compulsory school and upper secondary school and to change its total balance according to philosophical or political considerations about the goals of education for future needs also affect higher education. One example of such a structural change was the introduction of an integrated science course in the non-science tracks when the upper secondary school was revised in the early 1960s. This was partly done in order to bridge the gap between the two cultures according to C.P. Snow's terminology. In a corresponding way, philosophy and psychology were introduced as compulsory subjects on the science track, and arts and social sciences were relatively strengthened. Such changes take time from other subjects. In this particular case, i.e. the science track the net outcome was a lower degree of specialization at the upper secondary level.

Another example is the introduction of an option between German and French as the second foreign language. In the old system, all students had German as their second foreign language and most of them a little bit of French as their third. Consequently, the national pool of functional skills in French became very small. In order to promote the number of students with knowledge of French, it was introduced as an option already in grade 7 at the expense of some of the domination of German. When the upper secondary school reform was added some years later, it became possible to get a pool of students with altogether six years' study of French at the end of that school. The option system during the last school-years, however, has been used in a way that makes the fulfilment of this goal more difficult than anticipated in the reform decision.

As a third example the decrease in the share of the timetable allocated to the so called orientation subjects in compulsory school may be given. The philosophy behind the decisions has been that communication skills are a better means of learning than subject matter areas like history and geography which entail facts which rapidly become obsolete in a changing society. In the preparations for the 1969 curriculum revision the National Board of Education described the orientation subjects as servants to the communications skills. The decrease in the orientation subjects may be regarded as the price paid for the wish to attain a reasonable minimum standard of elementary communicative skills in Mathematics and Swedish.

As time is always limited one change in favour of a particular subject will affect the possibilities to keep the same quality in those subjects from which time is taken. It is now commonly accepted that educational planning must go beyond the sheer quantitative estimations in order to tackle problems of content and quality - a point raised as an urgent need both by economists and sociologists. It is also known from studies that the same level of attainment can be reached not only by different methods but also - and particularly - in a shorter or longer time dependent on a number of characteristics of teacher, class and school. Also research on mastery learning gives strong support to the role of time as a compensatory factor. Thus the same level of achievement can be reached when enrolment is broadened, but the less able students may need more time, and greater demands are also put on the teaching methods in the direction of an increased individualization.

Cumulative effects of changes in curriculum balance in compulsory and upper secondary education must be analyzed. This is so because sometimes it is difficult to estimate if changes in the contents and outcomes of higher education are to be regarded as a consequence of deliberately planned or unintended side effects of school reforms at lower educational levels or if they are an outcome of reforms of higher education

itself. If outcomes of higher education do not turn out to be satisfactory and changes need to be made one must know where in the educational system changes have to be made.

5.5 The Criterion Problem

5.5.1 The Problems of What, When and Where

What criteria should be used in an evaluation of the reform of higher education, when should it be done and where? The last questions may seem strange, but are, in fact, highly appropriate. It is perhaps relatively easy to accept that it is not very meaningful to expect any stable effects of the reform until after some time. Specific accumulated demands and other typical transition tendencies need some time to even out. The new boards and staffs must get a fair chance to learn to run the new machinery. And - last but not least - the specific target groups must get some time to react and to change behavior after the first waves of information.

The problem of where the effects should be registered might, indeed, seem more curious, but in this particular case it is by no means self-evident that it should only be done within the area of higher education proper. The reason for this is that so much of the reform is dependent both on the new admissions policy and on various measures taken in order to widen access to higher education in new regions and in non-traditional enrolment groups. Consequently, it is reasonable to expect that a great deal of the effects will come to surface both on the secondary school level and in other forms of adult education. Also, the postgraduate levels may of course be affected.

As to time, we have already seen that it is reasonable to expect changes only if certain expected patterns of planning and administration are undertaken. Otherwise, effects will fail to appear or become weak. Such crucial conditions necessary for a reform success may also need to be combined before any breakthrough can be expected. Finally, other changes of system or context, not included in the reform, may also be necessary.

In the following sections the main focus will be put on the problem of what criteria to use in the follow-up but also on the problems of when and where will obviously be attended to. Before proceeding, however, it is necessary to consider three special problems: the relationship between specific reform goals and the general more permanent objectives of higher education, the meaning of equality and recurrent education.

5.5.2 Specific Reform Goals versus General Objectives of Higher Education

A reform implies that deliberate steps are taken in order to bring about change of a subsystem within society in some specific respects and in a certain intended direction. Reform effects may, as discussed in the preceding section, fail to appear or become disappointingly weak because of bad or unrealistic theoretical models behind the planning. It may also fail because of lack of competence, or because of specific mistakes or shortcomings in the coordination of the implementation program or in the general administration. Positive and negative side effects may also appear.

The present reform is particularly delicate with regard to the relation between the specific reform issues and what might be called the permanent objectives of higher education as regards undergraduate programs, postgraduate training and research. In the first case we can, for example, think about the duty to stimulate and train a sufficient number of students to develop themselves into researchers by embarking upon the doctorate programme. But we can also think about the not always explicitly stated goal to educate a sufficient number of people on the level of the basic degrees who will form a pool of competence in various disciplines and methods corresponding to the needs of society today and tomorrow.

Many of the specific reform issues have to do less with contents and competence than with expected changes of student flow with regard to educational and social background. They have also to do with the age of enrolment and the duration of the studies at the college or university. For these reasons it is both common and justified to put questions like the following:

- 1 Are the specific reform issues threats to or facilitators of the permanent, cognitive goals or are they intended to leave these traditional goals unaffected?
- 2 If the specific reform issues are not planned to interfere with basic, traditional objectives like the ones mentioned above, to what extent will side effects of the system still affect them in a positive or negative way?
- 3 To what extent might other changes in society - such as the contextual conditions analysed above - affect the system in an unforeseen way so that either the traditional goals, the specific reform issues or both are facilitated or threatened?

There is no doubt that many domestic critics of the reform are leaning towards the theory of a threat as a consequence of the reform, especially with respect to the risk of a

continued decreased enrolment of young, able students in research. This will be discussed a little more in a following section.

For the present moment it should, however, be stated that there is no intention behind the reform either to decrease the number of students taking up postgraduate studies or to weaken their general level of competence upon entrance into doctorate programmes. Their range of experience in other aspects than the subject applied for may, however, be increased as a consequence of the reform, since one of its main goals is to avoid dead-ends and to create opportunities for enrolment in research training programs for students in most study programs of a certain duration.

Finally, as regards the pool of competence at the basic degree level, a prime objective of the reform is to satisfy social needs in this respect and also to meet the demands by the students for different types of study as long as the resources of society makes this defensible. The principles for quantitative planning in this respect have been presented in a special study by Bergendal (1977).

5.5.3 Equality

The promotion of recurrent education and equality are basic guiding principles for the Swedish reform striving not only within higher education. Social equality has been discussed in chapter 4 with regard to its basic meaning and criteria for evaluation. There does not exist, however, any officially sanctioned interpretation. We may also call this the lack of operational definitions. It is no doubt easier to reach a compromise between different parties when concepts are not operationally defined. Political parties may thus vary in their interpretation of the exact meanings of the reform goals. A compromise may also be more easily attained if the focus of the reform is laid on organizational changes. Agreement about methods to reach a reform goal may become possible either because the compromise contains elements to which each of the main parties gives a high priority, or because the parties perceive the same pattern of changes differently, i.e. they anticipate the future function of the system in diverging ways. These types of mechanisms do not necessarily exclude each other. An unclear decision of a compromise character often means that controversial issues and especially different opinions about anticipated consequences are more or less deliberately hidden for the moment, while real problems are pushed ahead. Follow-up studies help them to be brought back into focus. It is therefore often difficult to derive any conclusions about evaluation criteria from a reform decision.

Equality in the field of education may mean either equal opportunities, equal realization of opportunities, equal treatment, unequal treatment for equal outcomes or equality of participation. Moreover, the reform of higher education lies on top of a number of reforms of the underlying school system. All these reforms are intended to contribute to an increase of social equality in the Swedish society. With respect to the influence exerted upon career choices by different contextual factors in society outside school, contributions by higher education to social equality are limited. This is only natural as the school system is mainly related to individual need but higher education is most closely related to the general level of research and technology as well as with the division of labour and other economic and social patterns.

Yet there is a long political tradition, which has gained support also outside the Social Democratic party, to decrease social stratification and even out inequalities within the basic context referred to above. An important part of the policy is played by the principle of a free choice. Therefore the policy means of promoting increased enrolment in upper secondary education among working-class children are primarily intended to stimulate intrinsic motivation. Incentives like selective grants and examination bonuses do not exist. Likewise, there has been a fundamental resistance to all kinds of active selection of students by any authority. Thus the application system and the principles of free choice by the student and his or her parents have been - and still are - cornerstones of Swedish policy.

With respect to both these basic principles, to the qualified character of higher education and the obvious chain effects between different levels of the educational system, it would consequently be unwarranted to expect greater equality effects in higher education than at the secondary level, including adult education. Even expectations of the same level of effects may be unwarranted unless a considerable time lag is allowed for.

The equality effects on the compulsory and secondary school levels have been analyzed in the preceding chapter. On the higher education level criterion problems are also involved, mainly concerning the basis for a comparison. If the sole criterion is the proportion of people in the whole adult population having embarked upon higher education with a working-class background as compared with other social groups, most reforms are doomed to failure unless a very long time perspective is applied. Also when comparisons are made within the specific school cohort, grand totals may show little progress or sometimes even a regress. Recent statistics of the enrolment patterns in certain fields of higher education seem to indicate a decreasing proportion of working-class students during the early 1970s, when there was a

general decrease in absolute enrolments. It would, however, be premature to draw any further conclusions about a general, negative trend due both to the specific context conditions during this period, discussed above, and to the far-reaching ambitions of the new reform. Trends like the observed one should, however, be used as warning signals for further investigations into the problem.

It should also be remembered that a breakdown of statistics into further subgroups often may be worth while. The comparisons over time at the secondary level published by Hårnqvist & Bengtsson (1972) may be taken as an example (cf. 4.2.6).

5.5.4 Recurrent Education and Student Flow

The concept of recurrent education is used both as a fundamental planning principle in many countries but has also been used to legitimate quite different policies.

As with social equality, recurrent education does not readily lend itself to a derivation of any clear-cut criteria of evaluation from the decisions taken by Parliament or from the proposals by the Government. Yet, recurrent education is regarded as a prime goal of the reform and at the same time as one of the most important means of promoting equality.

It should also be observed that recurrent education at the postsecondary level is nothing entirely new for this reform. A pattern of recurrency has been growing gradually, at least since the middle of the 1960s, through the increased proportion of adult students. This applies above all to the faculties of liberal arts and sciences. They have entered higher education either for some kind of further education in single courses on top of an earlier professional training at the secondary level, or for a full-degree program more or less in line with their earlier occupational experience. So far, the element of recurrent education in the reform should rather be regarded as an adaptation to an already introduced and partly established pattern of career choice behaviour than as an innovation. The origins of those changes may in turn have to be traced to factors in the general, economic environment. What is new, however, is that recurrent education has become a deliberate strategy for all higher education through the reform.

What can recurrent education possibly mean in operative terms in higher education? Sometimes the overbridging function is emphasized heavily, particularly as a means to fill the gap between the generations. Thus recurrent education in that connection becomes almost synonymous with adult education, and its main role is to redistribute educational opportunities to members of the older generation. They have with their taxes paid much of the big expansion of the educational system for the younger generation without getting themselves any chance to realize their own study dreams. If it is accepted

that this is one, but only one, role of recurrent education, then the following problems arise with special regard to higher education.

- 1 How far up in the ages should the reform ambitions climb - and how far down does the generation gap cease to be a reform target?

Should there be a difference between entrance to the general study lines or to single courses? If so, should it be regarded as a reform success - if a great number of people 25-35 years old apply to the program in medicine under the new admissions scheme, but will it be a failure if a number of 40-year-old applicants are admitted? Does it make a difference if some of those have another academic degree behind them? What about the man who comes directly from the shopfloor as compared with him who originally had an equally poor educational background, who also dreamt about becoming a physician, but who meantime chose the second-best of entering a program for economists?

- 2 Correspondingly, is it a failure of the reform if adult applicants do not choose the full-degree programs to any great extent? At which age is the inflexion-point at which the authorities start regarding adult students applying for single courses as a merit of the reform? At what age does it cease to be a merit? Does it depend upon whether some of these students otherwise would have stayed at the secondary, adult education level, as students in a folk high school or as paying participants in a study circle?

- 3 Do study motives make a difference? Is it more in line with this part of the reform, if participants in an economics course go there because they hope to get another job, to be promoted within their present office, than if they "only" want to understand better the government's economic policy as it is presented in journals or television, or should there be a positive indication of an increased active participation in the meetings of his or her union or any other association?

General answers can probably not be given to these questions simply because it depends both on the total balance of different components within the adult education sector and their societal costs and on the rest of the program. Yet regional and local boards command great resources to plan and administer single courses. Criteria are therefore needed as well as further information about how the new system really functions for different groups and in relation to different alternatives.

Except for the specific overbridging function the principle of recurrency implies the alternation between work and study at the post-compulsory level. For the education system this often means a break between different stages of formal schooling including certain means for returning. It also means a break for practice or professional work in an otherwise longer program of study at the upper secondary or tertiary level. The new Swedish programme in law may be given as an example of the latter kind of recurrency.

Both these models are encouraged in the Swedish reform although the number of longer programmes which have been split up is very low. This is due to the simple fact that most programmes do not exceed three years of study. In the area of the medical services, the programme in medicine has just been opened for nurses. They will be able to complete the programme in a shorter period of time as they don't have to follow every course. Another proposal has recently been made by a special commission (VÅRD 77) to create a common educational basis for all types of medical personnel. This affects the choice of study lines in the upper secondary school.

As for those students in upper secondary school who have not yet established themselves on the labour market, the new reform may in most cases make it easier to gain entry to - or to reenter - higher education after a period of work due to the credit which is allotted to work experience.

Finally, for the younger generation still in compulsory school, recurrent education in general and the new admissions scheme in particular offer a greater freedom of choice and greater chances of compensating for low school performance by credits for work experience. The question is, which social groups will be most prone to take advantage of this new possibility in the long run. For those students who are determined to enter highly restricted study lines already from the beginning, the competition will be harder than before.

In a longer perspective, a systematic pattern of recurrency may be developed which does imply a guarantee that individuals return at regular intervals, within certain age limits, or on certain indicators of service or need. Such a system of recurrent education may need a much more deliberate planning, both quantitatively and qualitatively. It may also have a far-reaching liberating effect on the curriculum planning, now often suffering from a strong "storage demand", in underlying school forms both at the level of upper secondary and compulsory schooling.

5.5.5 The Criterion Problem in Conclusion

Many unclear points remain as to criteria for evaluation. Therefore, evaluators may have to start their analyses with an interpretation of their own, suited for the specific aspect of the reform they are evaluating and before any empirical data are presented. As usual, some statistics and other types of empirical data will probably be presented without any preceding theoretical analysis of expected outcomes in that area. This can be helpful as a stimulus to a refreshed debate, but it may also be somewhat risky, particularly if the report contains information which seems alarming in the first instance. The whole debate may be too concentrated on one single issue without concern for the total balance of outcomes. Besides, there is a risk that further work on other criteria is neglected to the effect that the whole evaluation enterprise and also much of all future planning will become a victim of the existing poor statistical indicators instead of using its intellectual power to create new indicators according to the implicit demands of the reform.

Finally, the importance of a follow-up study of any kind may be highly dependent on the degree to which the evaluators will be able to explain and motivate their derivation of criteria from the reform objectives and the use of existing empirical indicators.

In the last case, perhaps the great risk of misleading conclusions for the future is hidden in the fact that available statistics have not been planned beforehand to suit the purposes of an evaluation. It should be underlined that representatives of the National Central Bureau of Statistics have called attention to this problem and have asked for an improved dialogue with the National Boards about the total set-up of statistical criteria. The running statistics are but one out of several necessary conditions for a further development of an evaluation and of a sound planning. Yet meaningful statistics are a good basis for specific investigations at points of strategic importance in the problem area. This applies not least to the adjacent area of secondary and adult education in which several effects of the higher education reform first might be identified.

Thus increased systematic attention must be paid to the total set-up of indicators of the function of higher education in its context. Yet some further points can also be made even though on a preliminary basis.

- Indicators about the internal function of the decision-making processes with regard to the role

of certain groups may be of secondary importance, even though a goal fulfilment in this area may facilitate the attainment of the overall goals. The function of those local and regional boards concerned is in turn heavily dependent on the planning and evaluation activities carried out by their staffs and the degree to which this is done in an insightful and competent way. Similar demands can also be put on the National Board of Universities and Colleges both with regard to the functions of the national sector planning boards and with respect to its supervision of regional and local boards.

- The prime criterion indicators concern enrolment trends and student flow.
- Because of the intended effects of the new admissions scheme some of the most important indicators have to be located at the level of secondary and adult education.
- The appropriate time for valid conclusions and for corrections of the set-up of means for a better fulfilment of the aims does vary with the specific problem and the level of the system concerned.
- Criteria about social equality and recurrent education must, above all, be differentiated with regard to age group and life situation. The basis for an evaluation in this respect should preferably be sought in the specific target groups, at least as a supplement to an institution-based collection of information. This will be specifically important for the cohorts now in secondary and compulsory school.
- The follow-up of the reform cannot concentrate only on specific reform issues but must also consider side-effects on the traditional goals for higher education with regard to the students' structure and level of knowledge and skills, the national pool of competence in certain areas, the enrolment in postgraduate studies etc.

5.6 Special Problems and Preliminary Trends

5.6.1 The Extended Concept of Higher Education and the Unitary Model

The preceding discussion has already given several examples of intended advantages with the unitary principle adopted. It should be an effective use of limited resources, it should facilitate transferability of credits between all

types of institutions within the system, it should facilitate enrolment in post-secondary training programmes from all types of undergraduate training. This implies no doubt a greater range of experience among the candidates for postgraduate studies, which mainly is a favour from the point of view of society at large, even if it must lead to some adaptation in the research departments concerned.

Moreover, a unitary system should make possible an effective use of the departmental system so far, as the departments are regarded as the basic units of the college. In the university system they are organized on the basis of the disciplines and they form the most competent basis for the teaching of contents related to their field of expertise in all the various types of undergraduate programmes. This arrangement should increase the contacts of the departments with different fields of application, and it also implies a certain guarantee of quality with regard to curriculum contents and research connections. The alternative is - and has formerly also to some extent been - a greater number of smaller departments or even senior lecturers operating in isolation and sometimes even without the basic resources of a department and with few - if any - connections with a research department. A binary system may also lead to expensive duplications. The new system, mainly due to the conditions mentioned above, should also facilitate the development of new courses through the use of modules from various disciplines and departments and thanks to the expertise with which a greater department with its easier access to specialists can serve programme committees.

A number of contextual factors have also contributed to the fact that a unitary system has been regarded as a solution relatively near-at-hand in Sweden. The universities have been quite flexible in their adaptation to societal demands in recent years, both with regard to their great efforts to take care of the big waves of new entrants, to their willingness to cooperate in establishing new university branches (as a consequence of the 1963 Planning Commission) and with respect to their initiatives and cooperation in the development of new undergraduate programmes designed to meet the needs of society as well as the demands of the new and larger student groups. They have also played an important role in developing external programmes of different types, although in many of these cases the cooperation has been influenced by a felt need of the departments not to loose too many of their staff and other resources in times of decreasing enrolments in the early 1970s.

The challenges and risks with the Swedish "solution" are predominantly connected with two interrelated circumstances: Firstly, the administrative and bureaucratic complications in planning and in all matters of financial resources may easily lead to a heavy structure and an accompanying low innovation

capacity. Secondly, even if flexibility and innovation are retained, there is a risk of changes of an unimportant or even inadequate kind. Thus there is both a risk of too heavy a dominance by the traditional academic institutions and of overmuch conformity to popular, political slogans, which both may be detrimental to the interests of the students and the specific target groups.

The criterion problem in this respect is difficult but extremely important. The whole discussion would probably profit a good deal from a comparison with our closest neighbour, Norway, and its problems with the relations between universities, district colleges and regional boards. Above all, criteria should be sought in the long-term development of new programmes and courses, particularly the new colleges. To mention one example, the colleges of Östersund, Falun/Borlänge and Kalmar have taken the initiative to design a new local study programme for tourism. Other examples are the local programmes for chemical economics and mathematical economics in Karlstad, production administration in Eskilstuna, marketing in Västerås and building preservation in Göteborg.

The criteria should, of course, not limit themselves to an enumeration of new programmes or courses here and there, but must aim at an assessment of the motives behind these new initiatives and the extent to which common resources are pooled in an economic and educationally qualified way.

An assessment also has to observe the risk that other parts of the reform inhibit the possible benefits of a unified system as outlined in the introduction to this section. What about the cross-sectoral courses and cooperation, especially in the field of medical care which to a great extent - apart from the programme in medicine - belongs to the municipal part of the system? What about the development of a structure of single courses as part of a programme of further education, overbridging sector and faculty boundaries as well? Economics, sociology and regional planning for the engineering and medical health personnel in civil service may be taken as an example, not to mention various courses in science and environmental protection for all kinds of teachers, administrators and civil servants trained in the arts and social sciences. To what extent is there from this point of view a drawback so far, as the University of Agriculture is a university under a quite different ministry than all the others?

Finally, apart from all innovation aspects, do the different colleges and departments make any use of the assumed advantages of the new system in their daily work?

5.6.2 Decentralization and Codetermination

The general problems of decentralization and codetermination have been dealt with in several earlier reports in English, mainly from the point of view of organization theory and political science (Ruin 1977; Premfors & Östergren) or with special regard to innovation processes (Berg & Östergren 1977). In this connection only some comments need to be made on the way in which the renewal of decision-making processes is intended to affect the contents of the programmes offered and the methods used in teaching.

From an organizational point of view, the most recent development may be said to derive from the endeavours to promote participation in decision-making among students and employees, which started as society's response to the relatively mild Swedish student unrest in 1968. It should, however, be emphasized that employee participation in decision-making in the recent decade has been one of the most important political issues of Swedish general politics both in the private and the public sector (see Ruin 1977). In the sector of higher education the first concrete steps were taken in connection with the experiments with new forms of collaboration within department boards, faculties and university boards. Students as well as administrative and technical personnel then became members of such boards according to different models. Later the proportions and procedures of election have been changed somewhat due to the final proposals by U 68 and also with regard to the inclusion of external members, representing various regional and municipal interest groups (see Ruin 1977; Premfors & Östergren 1978).

The aims of the changes described so far coincide mainly with general international trends in the democratization of higher education. The renewal of this part of the system does not represent anything specific for the 1977 higher education reform.

The inclusion of external members in local and regional boards is much more specific. It is closely connected with the decentralization of the decision-making about both course structure and financial resources for teaching and administration. These problems have been described more in detail by Premfors & Östergren (1978). Thus regional boards were established with two main duties: 1) to coordinate plans and resources in general within each region and to make specific recommendations about the claims on resources for the following fiscal year by universities and colleges within the region and 2) to plan, coordinate and allocate resources of the different institutions of the region for their programmes of single courses, local and individual study lines. As already mentioned, for each fiscal year each regional board gets a certain sum for this purpose, which in turn has to be split up in smaller posts at the local level. This is done by the

local university or college board and the different programme committees under their supervision.

Before the reform the Office of the Chancellor of the Universities had to take a long series of detailed decisions about resources for teaching staff at every single department, and for decentralized external courses. The same thing is true of many details concerning the internal structure of the syllabi. Pressures on decision-making about both resources and curricula can be said to have led to a harder centralization in the late 1960s owing to the combined effects of drastically changed student enrolments and a heavily increased need for new courses and for other programme variations. Earlier, the centralization of some curriculum decisions was often defended by student unions as a guarantee of an equal standard and transferability of credits and as a counterbalance against too high course demands by the professors. But in a state of increased dynamics, the effects of an otherwise not very controversial centralization became more noticeable to a greater number of people and also much heavier than before. With regard to the size of resources involved, the element of decentralization in the new reform is quite considerable.

The intentions behind the greater freedom for regional and local boards and the increased amount of decisions on influence over curricula and resource allocation can be expressed as a wish for greater involvement and, thus, also increased satisfaction on the part of all those concerned. An improvement is also expected with regard to the initiation of various innovations (Berg & Östergren 1977). With regard to programme planning, an increase in flexibility will be possible, with positive effects for the local labour market and for special interest groups among students.

This part of the reform imposes partly new demands on the administrative staffs of universities and colleges, especially with regard to their contacts with the local labour market and with various labour unions and other associations. Such a planning also calls for a feedback of information both short-term and in a longer perspective.

Specific problems are needs connected with the new regional boards with respect to planning and evaluation. They have been given the responsibility not only for the allocation of relatively permanent single courses at the universities and colleges but also for the resources of the decentralized local external courses and of distance education. This raises great demands on long-term planning in the following respects: balance between courses at different levels within a subject, balance between subjects, localization, the periodicity with which a given subject is offered and the form in which the course is arranged. Such demands on long term planning have

been confirmed by the evaluation studies made of local external courses (Szymczak 1977, Kim 1978) and distance education (Willén 1978; cf also Dahllöf 1977, Dahllöf, Kim & Willén 1978). It remains to be seen whether local and regional boards have sufficient staff resources and if the new organization has been adequately designed for these duties.

As indicated above (p 2) the new administrative structure has been subject to criticism, especially with regard to the new regional boards, which are sometimes perceived as a new bureaucratic complication in an already complex system, especially in budgeting matters. It is, of course, too early to make a judgement about this for the moment. The problem is also subject to a special investigation within the Ministry of Education.

The new organizational structure has also been criticized because of its consequences for the faculties and their leadership in matters of research and research training policy. As a matter of fact, a quite heavy criticism has been raised against U 68 for not having taken research problems into account. In this respect, it should be underlined that the terms of reference for the U 68 Commission were entirely restricted to the level of first degrees in higher education, since the problems of research policy and training of researchers were to be treated by other commissions, the Commission on the Organization of Research Councils (SOU 1975:26) and the Commission on Postgraduate Education (SOU 1977:63) respectively. It was also anticipated that the proposals by U 68 should not interfere with faculty concerns over postgraduate studies and research. The proposals for new planning agencies within the new sectors, combined with the general terms of reference on codetermination in the decision processes, made it, however, unavoidable to touch on some problems related to the monitoring of postgraduate programmes and research. A specific reason for this emerged as a consequence of the unitary model adopted, and led to the inclusion of all senior lecturers in the faculty assembly as part of the policy to strengthen the research connection of the small colleges. Another consequence of the same tendency was the need to create a more effective and representative faculty board for the running affairs of the faculty. In this connection it should also be noted that some of the faculties, quite apart from the inclusion of members from the small colleges, had grown to a size which made them very heavy to operate. Moreover, some of the new rules for the faculty boards are of a provisional kind, even though the proposals later made by the Commission on Postgraduate Education did not imply any great changes in the new structure. These proposals have not yet been treated by Government or Parliament.

5.6.3 Sectoral planning and occupational orientation

The principles for the quantitative planning of higher education at the national level have recently been the subject of a thorough examination by Bergendal (1977).

Partly as a consequence of the principles underlying the unitary choice, the planning of all types of programmes bearing upon the same type of professional occupation should be coordinated. The problems on the professional labour market, and not least the imbalances created within higher education between the restricted and open entry parts of the system, also called for a planning system more directed towards the main professional groups than what could be performed within a planning system primarily based upon the disciplines of the faculties.

The planning of higher education takes place at different levels. The highest level concerns primarily the balance between different sectors of the economy and is mainly a matter for the general, long-term economic planning of the Government. The proposals from the planning commissions coordinated within the National Board of Universities and Colleges, form part of the basis for the national overall planning. In comparison with the former faculty boards, the new planning commissions have more members representing specific interest groups and society at large.

The general study programmes constitute the skeleton in the planning of the planning commissions. The final decision on the establishment of a new general study programme is taken by Parliament, and it is expected that in the future most new general lines will have been tried out beforehand as local programmes of study.

For that part of the system to which entry was formerly highly restricted, the new system of "occupational orientation" of the general study programme is nothing new. Due to the increased research connection for programmes which earlier belonged to the non-university part of the system, the total range of subjects is often increased and the contents of the entire programme broadened.

For the faculties of the arts, social sciences and natural sciences the principle of occupational orientation may in some cases mean an increase in more directly useful courses or in a combination of mainly discipline-based courses in a new way which is expected to facilitate the students' opportunities to find an outlet for his capacities within a professional area. But it should be borne in mind that these faculties have traditionally also prepared great numbers of students for professional work in society, mainly as teachers but also in other ways. The new structure of general courses is, consequently, just an extension of that principle to a greater

range of professional areas intended to be in the interest of both society and the students. As before, the students' demands should be quite an important factor in the planning process.

The U 68 Education Commission and the Social Democratic government proposed in 1975 that all general study programmes should be subject to restricted admission within a total capacity which as much as possible should meet student demand. The governmental coalition of 1976 however, maintained a sector of free entry which includes three of the permanent full degree programmes. These are the programmes in mathematics, business administration and urban and regional planning. In addition, 40 subject matter areas should also be kept non-restricted as single courses, unless there is a local shortage of teachers or premises. A certain procedure has been created for adding extra resources in case of an increase in student enrolments during the ongoing academic year. The authorities are obliged to keep a certain reserve for this purpose.

In accordance with a decision by Parliament in December 1978, restricted entry will apply to every programme of higher education as from July 1, 1979.

The principle of occupational orientation has caused much debate and confusion with regard to curriculum contents. It is true that a number of very specialized and labour market oriented courses were introduced in the late 1960s, partly as an effort to facilitate the entry of liberal arts and science students into the labour market. These programmes are retained. But this does not imply that all other courses have got a narrower profile. Sometimes the occupational orientation as indicated above simply means a somewhat changed combination of subjects, the contents of which are mainly based on the research tradition of the disciplines. Sometimes, some parts of a course programme are changed in the direction of what subareas of knowledge most students need to be familiar with.

In this connection the following might be quoted: "It should also be underlined that the Office of the Chancellor of the Universities (1974b), in its response to the Ministry on the U68 report, heavily underlined the broad sense in which occupational orientation should be taken, including among other things critical thinking in general and critical analysis of assumptions and basic points of view underlying common practice and societal order in the different sectors." (Dahlöf 1977, p. 50).

Finally the specific programme in advanced vocational technology (YTH), mainly intended for skilled workers, should be mentioned as a quite new initiative.

As regards the infrastructure of courses, this is mainly a matter for the programme committees and especially for the various departments. In the revision of degree-conferring programmes there has mainly been a tendency to loosen up the strict academic division into traditional disciplines as a part of a general international development. The reform supports such tendencies since they are regarded as an important means of overbridging the gap between theoretical analyses and experimental work on the one hand and the complexities of the real world. A beginning in this direction was made in the 1960s with the specific occupationally oriented courses mostly taken at the end of a degree-granting programme in order to facilitate entry into the labour market. Also a number of interdisciplinary courses were created, e.g. in environmental protection, which have often been attended by social scientists but which contain substantial subject matter in biology and chemistry.

A further characteristic of the development is the creation of project-oriented courses within a degree-conferring programme such as in theology and cultural communication. The basic pattern has often been set by the university of Roskilde and continental universities, although the Swedish versions are less far-reaching (cf. Askeland et.al. 1974). Especially common nowadays are two types of courses, namely (1) short introductory, cross-disciplinary surveys of the total field of study, often containing a number of topics to be taken by different working groups, and (2) a heavier, project-oriented integration course at the end when the students apply their new skills and knowledge to a case-study, very similar to the types of problems they later will encounter as professionals.

In this connection mention should also be made of the internationalization programme (Berg & Östergren 1977). It is an outcome of the Internationalization Commission within the former Office of the Chancellor of the Universities. That programme has many components, among which are the introduction of interdisciplinary studies, specific professional language courses, a new study programme combining business administration and language studies, the promotion of foreign language studies in school and the postsecondary level in various ways, an international exchange programme, etc. Parts of these proposals have been accepted as general goals by the authorities. Sometimes the goals of this programme, however, run into conflict with other trends e.g. the tendency to facilitate the studies especially for adults by substituting Swedish for English textbooks. German and French literature is now seldom if ever found in book lists at the undergraduate level. This development has been encouraged also by the actual use of the option system of German and French at the upper secondary school level. These tendencies, when taken together, imply a development in a provincial direction contrary to the intentions of the internationalization programme.

As discussed above in connection with the basic unitary principle, one of the most important goals of the reform is to increase the flexibility with which higher education can adapt itself to different demands for new programmes according to the needs of a local labour market, or to the demands of new target groups. A fundamental condition for such a flexibility is decentralization and freedom to develop new single courses and local lines. In turn, a prerequisite for the realization of this freedom is an active and competent planning strategy. The degree to which this is done can be a matter of evaluation.

5.6.4 Geographical Dispersion

One of the most important parts of the reform is the increased accessibility of higher education both with regard to educational and social background (see below) and geographical factors. In the latter case, undergraduate programmes and single courses are now offered at many more places than before. An intense debate also preceded the decisions on new "college towns". Yet most of these were formerly the sites of a specialized non-university school, e.g. a school of social work, a teachers college, or a municipal education center for nurses and other personnel in the medical services. Some of the new college towns have also had a university branch besides the specialized colleges since the end of the 1960s. In these places they have now been amalgamated into just one college with various study programmes. The most typical case of such local integration is Örebro, but also Växjö, Karlstad and Östersund should be mentioned. In Luleå a new institute of technology, established in the late 1960s, forms the nucleus of a new center specializing in the scientific study of labour. In many cases, the total programmes of these places have been broadened by the inclusion of new lines of study and single courses. There is, however, a basic rule that degree-conferring programmes already established at the existing universities and colleges should not be multiplied by the new ones.

A summary of the localization policy in higher education and the preceding types of planning has been made in a report for OECD by Hammarberg & Häggström (1977). The establishment of new permanent colleges has, however, been accompanied by further efforts to make programmes and courses more easily accessible by means of extramural evening courses and distance teaching programmes.

The extramural activities mainly take the form of a local evening course arranged by the school board of a municipality at the request of a university or college and under its inspection. Such arrangements were tried out during an experimental period before the reform. Evaluation studies by Franke-Wikberg, Johansson & Råberg (1971, 1972), Hammarberg & Häggström (1974), Szymczak (1977) and Kim (1978) have shown that enrolment to more than 90 per cent is limited to a radius of 50 km, but

that this form of decentralized courses to a quite promising extent has been able to reach new target groups with regard to social and educational background. Most members of such groups hold down their ordinary jobs besides their studies, which are undertaken at a slow pace. They mainly take only one course. Still, this is a contribution to the pattern of recurrent education, which probably could be developed in a more deliberate and systematic way if the planning principles, outlined above, are taken seriously by the regional boards.

The same conclusion can be drawn from the evaluation of the distance experiments. (See Willén 1978, Willén & Dahlöf 1978, Dahlöf 1977 ch. 5). In Sweden the distance programmes have been developed locally by the ordinary departments as one of the components of a programme of increased accessibility besides evening courses at the university or college and decentralized local external courses. They also seem to supplement each other in a meaningful way. Thus in subjects where a local external course is also offered the same semester within the same region, the enrolment in the local external course is limited to the 50-km radius around the course site to about 95 per cent, while the distance programme to the same extent enrolls people outside that area (Tengling & Willén 1975). Similarly, distance courses often enrol people with few other alternatives. Thus in a special study it was shown that a great deal of study circles offered outside the big cities never started because of too few applications.

The methods in the distance programmes are mainly correspondence supplemented by periods at residential schools, certain distance-overbridging teaching aids and a special telephone service. Broadcast programmes have not been used, while especially audiocassettes are popular. The main problems seem to be connected with feedback functions. Further development should focus on increased telephone service, improved residential schools, optional weekend courses and the like provided that the flexibility in the participants' study situation is preserved. Most of them have a full-time job and at times they have a longer break during their studies. Still, the rate of examination among those who started is quite satisfactory according to Swedish standards. Thus the decentralized line, also drawn up by a special planning commission (SOU 1975:72) and confirmed by Parliament, will most likely continue. There is a need for coordinated planning within and between regions in order to keep quality high and at the same time secure a broader programme structure and some periodicity in order to facilitate the combination of courses. Even people within metropolitan areas around the universities may need to have access to distance studies due to irregular conditions of work and other particular circumstances.

The geographical dispersion programme seems quite successful so far or at least promising from the point of view of social equality and recurrent education. Possible future problems

will probably arise, if local single courses turn out to mean a transfer from other forms of adult education or if the programme structure is becoming stereotyped or too much located at those places where the courses started. Flexibility and collaboration in the planning between different study forms, including distance programmes, seem to be a sine qua non for the further development of this sector.

5.6.5 Admissions Scheme and Enrolment Trends

Restricted entry has long been practiced in programmes for professions like physicians, dentists and engineers. The situation has, however, now been changed in two basic respects. 1) The total number of study programmes for which there is restricted admission has been increased. It now consists of all general study programmes with the exception of a free sector of three programmes in mathematics, business administration and urban and regional planning. In addition, a great number of single courses are also restricted, even if 40 areas should be kept open, unless there is a lack of teachers or premises^x. 2) The rules of admission have been thoroughly revised (cf. chapter 3.3). In this connection, it might suffice to mention that their main aim is to contribute to social equality by opening opportunities for experienced people without the full, traditional formal schooling of the university preparatory lines of the upper secondary school.

The new admissions scheme has, when this is written, been in operation only for a short period, and indicators about its actual function is so far available only for the first year. Due to the specific circumstances mentioned in the introduction to this chapter, conclusions should be drawn with extreme caution. The first, preliminary report by Kim & Simon (1978) points, however, in the following direction. Although the system has functioned as anticipated from a technical viewpoint, there should be an increased and more systematic feedback of information about the function of the admissions scheme so that a specific evaluation project need not be necessary in the future. Since most of the applicants put many alternatives on their lists, three runs of selection have been necessary at the central level. When people have accepted offers after the first and second runs, a great number of formally restricted areas do not after the third run attract a sufficient number of remaining candidates to fill all available places. In this case, the universities and colleges have to try to fill them. In effect, only some 60 per cent of the degree programmes were, after all, classified as having

^xParliament decided in December 1978 that every programme of higher education will be restricted as from July 1, 1979.

been subject to any real competition, and in about 30 per cent of them the competition was characterized as severe. These programmes represented 20 per cent of the restricted places.

Further, one of the main effects seems to have been a transfer of candidates from one admission subgroup to another (cf. chapter 3.3), to the disadvantage of students who apply for higher education immediately on completion of their studies in a theoretical line of upper secondary school. This might just cause a general delay and there is a risk that this will prove to be socially discriminating in quite an unintended way. Finally, credits for service with the governing board of an association are difficult to assess but seem to discriminate against women. Further conclusions about the new admissions system will be drawn after some years' experience.

A group of strategic importance is the 25:4 category, (cf. chapter 3.3). It is intended to be "the gate" to higher education for adults who for various reasons did not get an opportunity to carry on studies in secondary school or who, though talented, did not want to do so in their youth. It is thus regarded as the "second chance" and as one of the most important means of realizing the overbridging function of recurrent education. As already mentioned, a limited experiment with such an intake to a number of study courses has been carried out since the late 1960s. Early efforts to follow up the first students of this kind were made in the early 1970s (SOU 1970:21, UKÄ 1973), but since then available statistics on that problem have not been analyzed for many years. (At that time the basic rule contained a prescription for an age of 25 and a five-year work experience, so the short-name 25:5 is often used for the experimental group).

In connection with the access evaluation project, a retrospective study has just been published by Kim (1978). In that report a summary is made of enrolments and pass rates from 1969 to 1975 when entry was open for the 25:5 category only in some subjects within the faculties of arts and science, including the social sciences which were often chosen. The study shows both some satisfactory trends and some warning signals. To the former belongs the extent to which this category had increased their enrolments during the experimental period as a greater number of courses were opened for them. Moreover, those who started were on the whole as successful in passing the first course as the ordinary students. In the beginning of the 1970s the total pass rate in terms of at least one completed 20-point course was about 65 per cent.

To the warning signals belong a tendency for the group to have had a somewhat higher social and educational background than anticipated. Another warning signal is that there has been a somewhat higher early drop-out rate as well as a slightly declining pass rate in the first course, calculated over time.

There are, however, a number of possible technical explanations to these changes in the statistical data. As to the so called drop-outs, we should once again remember the studies by Elgqvist-Saltzman (1976) and others about a "search-behaviour" among available alternative programmes. The programme structure has also been changed by the inclusion of new 10-point courses towards the end of the period. Part of the increased total enrolment can thus be explained by this factor which also affects the means of the total points earned by the group. This is so because most courses for 10 points are short orientation courses on which one seldom can build other courses within the same subject field.

Another probably more severe indicator is a growing tendency not only in the 25:5 group but also among students in general to avoid the heavy standard courses, e.g. in economics or statistics for which there are some special eligibility rules. And the great majority of these students do not take more than one or two study courses, so the equalization effect is hardly reached on the full degree level.

Some observations can be added from the follow-up of the short-cycle vocational-technical programme which is offered on a full-time basis and during which the participants enjoy an extra favourable financial support for adults. The programme is, as indicated above, strictly occupationally oriented and there is a demand for a minimum of 4 years of vocational experience in line with the orientation of the studies. Although the curricula were too compact, especially in theoretical subjects in the beginning of the studies, and even though a great number of the participants were lagging considerably in their skills in mathematics at the start of the program (a lag which through flexibility and special remedial teaching activities was radically diminished after two months (Kilbom & Löfgren 1976)) the drop-outs were few and the pass rate exceeded 90 per cent in the first groups (Löfgren 1978). These programmes cover a period of three semesters and contain partly courses at the secondary school level, partly at higher levels. Another main finding is the degree to which the participants emphasize the importance of the specific grant system for their opportunities to carry on these studies. This should be compared with the conditions under which most other adult students in evening courses or in the distance programme pursue their studies parallel to ordinary full-time work.

Finally, some trends in the general enrolment should also be mentioned. As indicated already in the introductory chapter, there has been a very strong increase of students who choose single courses or subjects instead of registering themselves for full degrees during the 1970s. This applies foremost to adult students and may so far seem quite natural. But the same tendency has also become increasingly frequent among

students coming more or less directly from secondary school. The net effect of this is that departments within the fields of social and natural sciences now have great difficulties to enrol a sufficient number of students in their higher courses during the second and third semester for the basic degree, not to mention the recruitment to postgraduate studies. There are some obvious reasons, though, for this change, mainly the labour market situation for university graduates. At the beginning of the 1970s people with a university degree in almost every field - except health care - had very great difficulties in getting qualified jobs. The output of a greater number of university graduates than ever in Sweden and at the same time a forecast of almost no future need of secondary school teachers has had a direct effect on the situation at university departments that traditionally offered training for this profession. The modern language departments, departments of history and so on, had a great decrease in the number of students at advanced levels. There has also been a large total decrease in the enrolment at the faculties of mathematics and natural sciences. Recently, however, there has been some increase at the advanced level in the social sciences (mainly business administration) and in modern languages. According to the present forecast there will also be a substantial demand for secondary school teachers, which may affect the future situation.

5.7 Concluding Remarks

The new reform of higher education is at present in an early implementation stage. Since its planning period great changes have taken place in the Swedish economy and in other contextual factors which may influence the postsecondary system of education. Therefore, no definite conclusions can be drawn for the present moment. Preliminary pieces of information point partly in a satisfactory direction.

There is also, however, a risk that the tendency to choose single subjects instead of full basic degree programmes will lead to difficulties, for instance where research training is concerned. With the student behaviour being closely connected with the labour market situation, including planned reforms of the research and research training organisation at the universities, it is, however, difficult to predict the future enrolment patterns.

6

REFORM STRATEGIES

6.1

Goals for Educational Policy

The educational reforms described in previous sections of this report have been carried out using instruments that have been chosen to help realize the goals set for educational policy. The equality goal, efforts to improve the linkage with social life and the job world, and the resolve to increase codetermination and the local operating responsibility for education have made it necessary to adopt reform strategies which call for broad cooperation and a reconciliation of divergent standpoints. The system of official investigating by commissions, the Government's practice of consulting all parties with an interest in education, and the consultations and negotiations conducted by central educational administrators with representatives of municipalities and trade unions in this field are examples of instruments harnessed to the reform work. Moreover, the goals named for the educational reforms presuppose a decentralized "inner" change work at local level, within municipalities, adult education organizations and universities and colleges. The reform strategy which corresponds to the foregoing is embodied in personnel training and research and development (R & D).

The just-mentioned instruments for the reform work will be treated below in the following sequence: the investigating-by-commission system (6.2), the central educational authorities (6.3), R & D (6.4) and personnel training (6.5). A concluding section (6.6) will summarize the experiences so far gained of reform work that proceeds gradually on the basis of self-renewal at the local level.

6.2

Educational Policy-Making

6.2.1

Origin and Evolution of Reform Ideas

In the circle of OECD countries Sweden is usually considered to have a strongly centralized educational administration. Educational reforms are often thought to have a central origin, from which they first diffuse to regional and then to locally responsible educational bodies. One is therefore tempted to believe that the reform strategies and the reform processes are authoritarian and hierarchically structured.

That is not altogether true. It is obvious that the nearly total change which Swedish education has experienced in the postwar period was made possible because the country's educational policy and reform activity have been centrally moored. But from this it is wrong to draw the conclusion that reform policy and reform strategies are authoritarian or otherwise independent of a living educational democracy. If anything, one can contend that postwar Sweden has witnessed a distinctly stronger anchorage of educational issues in

public opinion and public policy than formerly. One example of this is the annual debates in Parliament during the period 1950-62 on the experiences gained of experimentation with the new nine-year compulsory school.

A characteristic Swedish feature is the strong position that the popular movements have had in our country during the past century. The blue-collar and white-collar movements have grown strong and now embrace the greater part of all employees in private and public service. Educational issues have often played a key role for these movements. The tasks and structure of the educational system have also been assiduously discussed within the free-church organizations, the sports movement, the temperance movement, the consumer cooperatives, the women's movement, the home-and-school movement, and in different kinds of popular education associations inside and outside these movements. The majority of such interest organizations endorsed the ideas, presented by the 1946 School Commission, to democratize the educational system.

The role played by these popular movements and interest organizations as moulders of opinion on educational matters can hardly be overestimated. They have influenced the political parties, which in their turn stand behind the political decisions taken in Parliament and Government. In Sweden the road leading to these decisions usually goes by way of the state commission system. The state commissions (or commissions of inquiry as they are also called) have become the focal points for the creation of Swedish reform policy. Trade journals, newspapers and other media have obviously contributed and imparted momentum to this process by publishing polemical articles and helping to mould public opinion.

6.2.2 The Investigating-by-Commission System

In Sweden the system of investigating by official commissions has proved to be an important instrument in the Government's hands for the creation of public policy towards education and other community affairs. The Swedish commission system differs in certain respects from its counterparts in other countries. It is actually a vital ingredient of the political and administrative system.

Public opinion on educational issues, often conveyed through the popular movements, then taken up and elaborated by the political parties, usually leads to a request in Parliament for the appointment of an impartial and unbiased commission to investigate how to go about dealing with a social problem. The initiative to launch an investigation may also come from the Government and its ministers or from central administrative agencies under the Government.

The first stage of such an investigation calls upon the minister concerned, in this case the Minister of Education

and Cultural Affairs, to draft terms of reference for the commission. He is authorized by the Government in its entirety to appoint members to serve on the commission together with a secretariat. Already at the drafting of the terms of reference consultations take place with the parties concerned. The employee organizations have an explicit right to see the terms of reference. This right is one of many ways in which employee organizations can influence the work of the commission.

The members of the educational commission are usually of three kinds: 1) M.P.'s or persons who are otherwise affiliated with a political party; 2) spokesmen for interest groups in the educational system, e.g. organizations of employees and employers, sometimes also student organizations; 3) professional experts engaged in educational R & D or in other fields such as economics. The commissions may be solely political, they may be political and professional or they may be so-called expert commissions, i.e. have a membership consisting of professional people and research workers. A not uncommon practice is for politically composed commissions to co-opt the services of reference groups made up of professional representatives or researchers.

After a period of investigations usually running from two to five years, the commission will deliver its final report along with a set of proposed measures. The report usually contains a timetable for putting the proposed reforms into effect as well as an estimate of the costs of implementing these measures.

The series of interim reports which the commissions deliver often contain scientific and statistical studies of the problems and issues covered by the terms of reference. During the reform period after 1950 a great many doctoral dissertations in education have been commissioned as sub-studies under the overall projects of the educational commissions.

The official commissions of inquiry in Sweden are called upon to serve as a forum for political deliberations vested with means to anchor proposals in the political arena, to obtain participation from the different interests concerned, to negotiate and to hammer out compromise solutions. In that way the investigating-by-commission system becomes an effective instrument for bringing out evidence on which the legislative and executive branches can rest their decisions. The combined number of working commissions now exceeds 300 and they run up an annual bill costing more than 100 million kronor.

6.2.3 The Submission Procedure

The commission delivers the fruits of its labours to the Minister of Education. It will be an exceptional instance if the work gets this far and no further. As a rule it is unthinkable to terminate the work at this juncture and let the commission's report become no more than a contribution to the general educational debate, a fate that often befalls similar reports in other comparable countries.

In normal circumstances the minister in charge of the ministry which has appointed the commission will send the final report, along with appurtenant special studies, to all government agencies and interest organizations affected by the investigative work. Virtually without exception, therefore, a report on education will be despatched to the central school authority and other central bodies affected by the report's proposals, among them the National Board of Health and Welfare, the National Board of Universities and Colleges, and the Labour Market Board. Regional educational bodies such as the county school boards, and local bodies such as a number of school boards or education committees, are permitted to offer opinion and comment on the proposals. As a rule the same right belongs to organizations of teachers, parents and pupils, as well as to interest organizations and non-profit organizations of different kinds, e.g. the popular movements referred to above.

The submission procedure, which by decision of the minister concerned normally lasts for a period ranging from six months to one year, forms a vital link in the chain of democratic decision-making. The submission bodies often devote substantial time and effort to studying the commission's report, the investigations on which it is based, the proposals it culminates in, the timetable suggested for implementing the changes, and the proposed costs that the reform will incur.

If the production of a report is an exclusive task for the commission, then it is the ministry's exclusive task to make sure that interested parties get to comment on that report. In so doing the ministry will assure itself of a critical evaluation on a broad front, which within this whole reform strategy is an important ground for the political decision that usually concludes this policy-making process.

6.2.4 The Taking of Political Positions

The question of defining general educational goals and specifying certain instruments of public policy for attaining these goals is usually taken up in the Swedish Parliament. Throughout the postwar period educational policy has been construed as an integral part of the general welfare policy (cf. chapter 7). But as regards schooling and education the decisions by Parliament have come to be limited either to general educational goals or to the outer structure of the educational system, i.e. the frames and rules within which it is up to

individual school boards, regional boards, governing boards of the higher education institutions, employee organizations and others affected by the rules to act on their own to raise the educational level and as far as possible give one and all an equivalent educational standard.

The investigating-by-commission system and the ensuing submission procedure, both briefly described above, usually lead to the Government's laying before Parliament a bill on how to treat the proposals put forward by the commission. In the normal case a commission report eventuates in the introduction of a Government Bill before Parliament. It is therefore characteristic of Swedish reform strategy to have any issue of current concern end up in one way or another on the parliamentary table. Another characteristic sign is that the time intervening between the presentation of a commission report and the subsequent parliamentary decision is comparatively short. It follows that the creation of educational policy through the investigating-by-commission system and its specification on the basis of that system go hand in hand with a reform programme decided in political and democratic order.

The following tabulation can illustrate how all this has functioned during the postwar period:

<u>Commission</u>	<u>Worked during years</u>	<u>Parliamentary decision in year</u>
1946 School Commission	1946 - 1952	1950 and 1954
1951 School Board Commission	1946 - 1955	1956
1957 School Commission	1957 - 1961	1962
1960 Upper Secondary School Commission	1960 - 1963	1964
1960 Teacher Training Commission	1960 - 1965	1967
1963 Vocational Training Commission	1963 - 1967	1968
1968 Education Commission	1968 - 1973	1975
1975 Higher Education Commission	1975 - 1976	1977
1970 Commission on the Internal Working of the School	1972 - 1975	1976 and 1977

This enumeration covers some of the most important commissions during the postwar period. Several other commissions have worked during this same period and their proposals have similarly resulted in parliamentary decisions.

Yet another attribute of the system, presumably one that is specific to Sweden, is that the Government Bill put before Parliament includes not only an account of the commission's proposals but also statements of opinion and comments by the submission bodies. As a result the submission procedure becomes an integral part of the democratic decision-making process concerned with reforming the educational system.

An additionally distinctive feature of Swedish reform activity is the division of this process into different steps. Thus it has often happened during the postwar period that Parliament has first decided in principle on a reform (the best-known decision of this type being the one taken in 1950 with reference to the future development of the school system), to be followed later on by decisions which put flesh on the original bones. In both cases the decisions are ordinarily based on commission proposals and on Government Bills derived from these proposals. Although it would take us too far afield to describe in detail the conditions for implementing reforms during the postwar period in two or more steps, one point stands clear: the pattern of political stability prevailing in Sweden since 1945 has been of great importance. Presumably another significant factor has been the relatively favourable economic development in Sweden after 1945 and the coordination to which politicians have aspired between developments in education, social welfare policy and the national economy. It has also been contended that Sweden is culturally and socially a fairly homogeneous nation, and as such not bedevilled by deep cleavages between ethnic, religious and linguistic groups. However, the heavy immigration waves of recent years have substantially reduced this homogeneity.

The fact that educational issues in Sweden during the postwar period have been continuously raised to a political level has been of extremely great importance. Every year from 1950 to 1961 Parliament would debate the experiences gained from experiments with the nine-year comprehensive school, and in 1962 it definitely came out in favour of a comprehensive school system to cover the period of compulsory education. For other issues there have been similar parliamentary readings, albeit on a smaller scale. This has turned the educational issues into much more than mere educational questions. They have become issues of welfare policy and of welfare development overall.

6.3 Executive Organizations

In the immediately preceding section we have discussed how ideas and opinions about educational changes arise, how they are analyzed in investigations and made specific through the commissions and the subsequent parliamentary decisions that are based on these fundamental ideas and opinions. So what starts out as a vague and unstructured debate perforce ends up with the imperative necessity to specify and reify one's proposals. With that the commissions and the political bodies turn over the responsibility for realizing the ideas to the administrative agencies. With that, too, we draw nearer to the other important component of Swedish reform activity, the one that is so vital for the educational system, namely the central government agencies as executive organizations.

A characteristic element of the Swedish civil service is bifurcation into ministries and central boards and agencies, an arrangement that came into being long before the advent of parliamentarism, i.e. during the reign of Gustavus Adolphus in the early 17th century. The top echelon of command over the civil service is exercised by the Government. The State authorities, i.e. the agencies of central government, are not subordinate to any minister in particular but to the Government itself. In other words, a minister is not entitled to issue direct orders to subordinate agencies.

The ministries taken together from the Government Office, which forwards the Government's proposals to Parliament (the Government Bills), drafts new statutory regulations, issues directives to the agencies, makes appointments, etc.

The central boards and agencies are autonomous vis-a-vis the Government, subject to the constraints imposed by ruling legislation and promulgated directives. These civil service departments have to manage their official duties on their own responsibility.

Sweden's central authorities in the educational sphere can be most easily likened to what other OECD countries would call the administrative branches of their ministries of education. Their cardinal mission is to implement the decisions made by the legislative and executive branches (Parliament and Government). The duties involved have essentially been of an administrative nature. Additionally, given the lively reform activity of the postwar period, the authorities have had to assume the responsibility for specifying and reifying the goals of educational policy, to recommend solutions of goal conflicts and to answer generally for planning, follow-up and evaluation of the activity. Besides engaging the services of legal and economic expertise, they have increasingly consulted professional expertise on educational, organizational and informational matters. The chief executive officers of

the central agencies, their divisions and departments, are public service employees and as such independent of shifts in the government. The agencies have their own boards with members who represent different societal interests in the labour market, social welfare policy and education.

6.3.1 The National Board of Education

By far the greater part of the municipal and state-run educational system is centrally administered by two authorities, the National Board of Education (SÖ) and the National Board of Universities and Colleges (UHÄ). Primary and secondary education, including the greater part of vocational training, fall centrally under SÖ. State and municipal adult education, in-service training of teachers, and educational research and development work likewise fall under SÖ as the central administrative agency. Each of the 24 counties in Sweden has a regional arm of central government in education, the county school board. The county school boards are responsible for regional school planning, inspection of schools, allocation of state subsidies to local authorities, and filling the majority of teaching posts in the schools. Together, the 24 counties comprise 278 school municipalities, which are directly responsible for local administration and management of the school system. All of them have a local education authority or school board, a school superintendent, and a number of headmasters^{x)} and directors of studies as school managers.

It will be of interest at this point to follow SÖ's development, which in essential respects mirrors the development of the school system. SÖ was founded in 1905 as a central board for the country's state-run secondary schools (before then they had come under the supervision of the established church and the cathedral chapters). In 1913 a corresponding national board was formed for the compulsory elementary school. These two were merged in 1920 to form a national board serving primary and secondary education in common. When the vocational training system began to be structured, it was hived off from the National Board of Education in 1944 to form a central agency by itself. In consequence of the integration endeavours of the 1950s and 1960s, vocational training was coordinated with the general secondary school, after which the two national boards were again amalgamated in 1964 to form a common agency for all primary and secondary education. Adult education was also brought into this agency and received its own department beginning in 1972.

^{x)} The term headmaster is used to denote both headmasters and principals.

A development of major importance occurred in 1951, when SÖ was given a special department for experimentation. This pilot scheme was mainly concerned with the introduction of a compulsory, 9-year comprehensive school. As from 1962, when the experiments were concluded, SÖ set up a separate division for central administration of the educational research and development work and another division for in-service training of teachers and other school personnel.

Under the standing instructions now in force, the National Board of Education is called upon

"to see to it that the content and methods of education are continuously renewed, developed and improved in tandem with research advances and developments in public and private administration, industry, commerce and labour market and in other areas of the national life, with conditions in schools abroad to be borne in mind as well;

to attend to synoptic and coordinated planning of the educational system for its extent, direction and organization, especially bearing in mind both the individuals' needs and wishes for education and society's need of trained manpower, to follow closely and support the regional and local planning, and to work for appropriate planning methods;

to follow the movement of the costs of the educational system and to ensure that the resources are being effectively utilized;

to assist towards ensuring that the administration of the educational system, on the strength of continuing rationalization, will be quickly and surely effective;

through information, counselling and other measures, to support and promote the educational enterprise on the regional and local level;

to see to it that knowledge of the educational development work is rapidly disseminated among authorities and others who are responsible for the activity as well as among those who are otherwise affected by the activity."

SÖ is organized in five departments under the agency management: one department for primary and secondary education, one for adult education, one for in-service training of teachers and educational research and development work, one for planning of the educational system and one for central administration. All told SÖ employs about 800 people.

SÖ is headed by a director general together with a deputy (deputy director general). The agency's board consists of

a lay committee with representation for the major organizations on the labour market, both workers and employers, a representative for the students, spokesmen for other central administrative agencies with closely related duties, e.g. the National Labour Market Board and the National Board of Universities and Colleges, and spokesmen for the associations of local governments in Sweden (the Swedish Association of Local Authorities and the Federation of Swedish County Councils).

6.3.2 The National Board of Universities and Colleges

SÖ's counterpart in the field of higher education is the National Board of Universities and Colleges (UHÄ). For more than one hundred years the state-run universities have been centrally administered by a chancellor. This person, who at first was an autonomous authority with a small secretariat to help him, was superseded in 1964 by a specially set-up central agency called the Office of the Chancellor of the Swedish Universities (abbreviated to UKÄ).

At the beginning only the universities came under the purview of this agency. In consequence, however, of the higher education reform decided by Parliament and Government in 1975 on the basis of changes proposed by the 1968 Educational Commission, institutions of postsecondary education other than universities also came to be incorporated in the new "tertiary school".

This reform, which came into force on July 1, 1977, set in train material changes in the organization of higher education, changes which sought to create opportunities for sustained internal reforms in accordance with the goals set for the tertiary school. The unified institutional organization is marked by decentralization. It has been the object, no matter what kind of task or matter is involved, to put the influence as close as possible to the actual educational and research enterprise having regard to coordination, fairness and efficiency criteria.

The influence of different parties with an interest in tertiary education has been guaranteed through the make-up of the planning and decision-making bodies. As a result better capabilities have been put in hand to let proposals and decisions come forward in discussions and interplay between the different groups and interests concerned.

The Government's Standing Instructions for UHÄ particularly call upon it to:

"1 follow the development of education and research within the country and in other countries;

2 answer for the synoptic and coordinated planning of undergraduate education and draft proposals for planning frames for such education;

3 take initiatives to develop general study programmes and supplementary programmes in undergraduate education, and submit proposals to the Government for such programmes as are needed;

4 even in other respects to promote and coordinate the work of developing education within the tertiary school, and to spread knowledge of this work and the results thereof, and

5 to support and promote the activities of the tertiary school by means of information, counselling and other measures."

Seen from the outside, the organization of higher education has little uniformity, this mainly because its sponsorship is divided. Higher education sponsored by the municipalities and county councils is planned and managed for the most part divorced from the state-run system and in large part in basically other forms than that which has been applied to this system. Centrally, it is a task for SÖ and UHÄ working together, and regionally for the regional boards, to bring about the desired cooperation between state and municipal higher education in the planning and development work. At the request of Parliament, the Government has decided to initiate an unbiased investigation into the sponsorship question.

UHÄ has on its premises five planning committees for undergraduate education, postgraduate education and research, namely:

one for the sector for education for technical occupations and for the mathematics-natural science and the engineering faculties;

one for the sector for education for administrative, economic and social occupations and for the law and social science faculties;

one for the sector for education for nursing occupations and for the medical, odontological and pharmaceutical faculties;

one for the sector for education for teaching occupations;

one for the sector for education for cultural and informational occupations and for the liberal arts and the theological faculties.

Earlier, UHÄ used to have five so-called faculty committees, whose areas of work coincided with the universities' faculty organization.

As from 1976 -- and as a consequence of the fact that all kinds of tertiary schools were brought under the umbrella of one central organization -- the agenda-preparing bodies, now called planning committees, have been grouped first and foremost on the basis of the gainful employment to which the education is expected to lead. This clear marking of tertiary education's vocational thrust is one of the distinctive attributes of the latest Swedish reform of higher education.

If the planning committees are going to have real opportunities to answer for the planning of the whole vocational training sector, including the municipal tertiary education that the committees work with, it is probable that SÖ and UHÄ will intensify their collaboration.

Another aim of the higher education reform has been to decentralize large parts of the planning of both education and research to the study programme committees and faculty organs of the local tertiary school units. Since 1976 this planning has been coordinated within six tertiary school regions and within these some twenty tertiary schools, among them the earlier universities.

6.4 Educational Research and Development

In the foregoing we have described two main components of the reform strategy that Sweden has sought to apply during the past few decades. One of these is the system of state commissions through which an educational policy and a reform policy are designed. However, the parliamentary and governmental decisions which the commission proposals normally lead to are usually of a general and overarching nature. The second main component of the reform strategy is represented by the independent central agencies which, after the political decision is taken, assume the aggregate responsibility for implementing it, i.e. the National Board of Education (SÖ) and the National Board of Universities and Colleges (UHÄ).

In so doing, both the state commissions and the central educational agencies have in recent years resorted with increasing frequency to professional experts in education. The ranks of such expertise include researchers, teachers, school managers and institutional leaders. In this way the educational research and development work (R & D) has been given a clear linkage with the reform activity. This linkage can here be seen as a third component of the Swedish reform strategy.

Educational R & D in present-day Sweden is for the most part decision-oriented: more than three-fourths of it is centrally administered by SÖ and UHÄ. This kind of activity had its origin, first, in the research programme that the state commissions had been pursuing in recent years, and second, in the pilot scheme of experiments with a nine-year comprehensive school that SÖ conducted between 1950 and 1962.

Since 1962 SÖ has been receiving a special R & D grant, of which about half is spent to pay for research pursued at different kinds of university and college departments. From 1962 to 1978 the grant has grown from about two million kronor to about 36 million kronor, which is equivalent to about 60 percent of all the monies that go to educational R & D.

UHÄ received a corresponding grant in 1969, which since then has grown from about 4 million kronor to about 20 million kronor. However, about 8 million kronor of this money is spent on staff development within the tertiary schools, which leaves 12 million kronor for R & D, equipment to about 20 percent of the country's R & D funds.

By international comparison the size of these appropriations is fairly large. However, the fixed resources for educational R & D, consisting of researcher posts and research departments, are limited. So here it is generally true to say that the variable resources are relatively large and the fixed resources relatively small. The greater part of the variable resources are put at the disposal of the educational authorities (SÖ and UHÄ), which decide orders of priority for R & D projects. In this way the R & D questions bound up with the reform activity have taken on the biggest scope. The "steering" exercised by SÖ and UHÄ concerns the delimitation of R & D problems, the choice of research department and the determination of time and money frames for the projects. The intrascientific issues are wholly left to the researchers.

This kind of decision-oriented or reform-oriented educational R & D has four attributes which distinguish it from what is called discipline-oriented research or basic educational research:

- 1) It is conducted in accordance with a plan which budget-wise covers one five-year period and which as regards detailed planning spans over one year. The majority of large-scale R & D projects run for two to five years. The plan is officially adopted by the agency after consulting a group of educational researchers.
- 2) The subprogrammes within this plan are based on coordination of R & D. In other words, the measures taken to use and apply the knowledge which research provides are

often built into the activity. Hence a great deal of R & D is not educational research in the traditional sense. The development segments often pertain to curriculum building, development of teaching aids and development of evaluation instruments.

3) R & D is designed so as to observe in particular the diffusion of results. Means for the transfer of information to in-service training of teachers and diffusion in other forms are built in from the start of the project. This is not so much intended to identify solutions to educational problems, which R & D can often provide, as it is to vitalize the educational debate on a broad front. This debate is of great importance for decision-makers on educational policy and in administration of the educational system.

4) R & D of this kind should be examined and evaluated against the goals set up for educational policy. Such examination and evaluation have been made in Sweden a number of times. First, the project activity has been analyzed by intrascientific observers; and second, it has been rated by educational politicians and educational administrators. An Educational Committee attached to SÖ, which includes representatives of the political parties, the municipalities, educational research and teachers and students, follows and passes judgement on R & D, especially the evaluation issues. This committee submits an annual report to the Government. Incidentally, as these lines were being written, the whole of SÖ's R & D activity is the subject of examination and review by a governmental commission.

One of the big difficulties with this reform-oriented and decision-oriented educational R & D is to diffuse the results gained and disseminate information about them. A not inconsiderable portion of the R & D monies is spent on measures which aim at a stronger interlinking of R & D and the in-service training of teachers and other school personnel. Moreover, efforts are being made to decentralize decisions on development activity and use of R & D funds to regional and local bodies.

For the most part SÖ carries on its R & D in two organizational forms. About half the resources are used for projects pursued in research departments at tertiary level. The responsibility for and supervision of these projects rest with the research department in question. The other half of the resources is used for development work under the direction of SÖ personnel but most of the time through personnel outside SÖ, i.e. teachers, teacher-trainers, school managers, experts of other types, through municipalities, etc. The problems at issue may have to do with developing a data base for classroom instruction, changing the course content, modifying study routes and time schedules, and so forth and so on.

Also assignable to the latter category of development work are projects which are carried on in partnership between SÖ and individual municipalities (so-called municipal educational development blocks).

In the new tertiary school a substantial responsibility for the development and renewal of higher education, its contents and activity forms, as well as its organization, rests with the local higher education authorities. UHÄ supports this local work through coordination and initiatives. The greater part of the R & D are devoted on UHÄ's behalf to follow-up and development work in conjunction with centrally decided reforms and to work which is conducted by the bodies chiefly responsible for educational planning, i.e. the planning committees. In addition UHÄ allots funds to pay for longer-ranging research oriented to fundamental questions for the tertiary school sector as a whole.

The follow-up of the higher education reform seeks to map out how different parts of the tertiary school function in connection with, first, the intentions behind the reform decisions; and second, the new system of rules. In the longer term perspective, the aim of course is to obtain evidence on which to base changes or to identify directions for change. Among examples of development projects which are exigent for the higher education sphere are the following: changes in classroom instruction forms towards problem- and project-steered education, new work and organization forms, charting of needs and wishes among new student groups and development of study organization and work forms adapted to their needs, to find forms for research link-ups and to increase knowledge of the interplay between higher education and the larger society.

The greater part of the funds at the disposal of UHÄ for financing R & D in higher education is set aside for development projects at the universities and colleges. These funds are tapped according to the local needs and priorities of personnel employed with local educational development units, for department-linked development projects and to grant partial leaves of absence for teaching personnel engaged in the production of educational aids.

As mentioned above the planning committees bear the principal responsibility for educational planning within the tertiary sector. UHÄ allocates resources to enable these committees to initiate and support projects on the development of general study programmes, to coordinate follow-ups and to evaluate changes in these programmes.

The reform follow-up programme administered by UHÄ has the following implications.

The reform's organizational part is evaluated, as are the ways of different bodies of functioning and collaborating within the tertiary school. Further, efforts are made to encourage more systematic activity valuation within the tertiary school and thus help to make that school into more of a self-rating and self-developing system. Other areas of investigation are the effects of the new grants system on the educational output and on educational planning. The new admission rules have been subjected to a critical analysis, as have the efforts dedicated to increased equality within the tertiary school.

The importance of R & D for the pedagogical reform work in Sweden has been often discussed. It has sometimes been contended that the reform decisions under educational policy are based on scientifically established results. This is partly correct: reform decisions are based on positions in educational policy. These positions have been more or less grounded on research. Besides, several of the problems of educational policy cannot be solved through research. They are more in the nature of value judgement questions than of research topics. However, one should not underestimate the importance of the fact that the Swedish community has succeeded in bringing about a dialogue between politicians, administrators and researchers. The latter have been able, by virtue of their independent status, to shed further light on how the educational issues interrelate with social, economic and cultural problems. Research projects have also contributed information about developmental-psychology and learning-psychology facts in an often value-laden debate.

In order to show the relationship between R & D and reforms (curriculum changes), we can take the following examples from the ongoing overhaul of the primary school curriculum.

A keenly debated question is: In which grade (at what age) should the study of the first foreign language (English) start? Under the curriculum now in force, the study of English begins in the third grade. In grades 1-3 the instruction is given by junior-level teachers and in grades 4-6 by middle-level teachers. A rather broad consensus of junior-level teachers would like to put off the start of English-language study to the middle level of primary school. For the past few years the National Board of Education (SÖ) has been conducting a large-scale, longitudinal project on English at the junior level. The project itself is being run by the department of educational research at Uppsala University, which is studying a large town in central Sweden containing some eighty class divisions; these units are taking part in an experiment where the given instruction time in English is apportioned in various ways across the primary school grades. An experimental group is starting instruction in English already in grade 1. The knowledge that has been gained from this project is now extremely valuable in the overhaul work. According to one of the argu-

ments that junior-level teachers have had against English in grade 3 is that teaching a foreign language at such an early stage hampers the pupils' command of Swedish. On the contrary, the Uppsala project studies show that the pupils in the experimental classes who have had less Swedish than their classmates have still attained every bit as good results on the Swedish tests. The results could be interpreted to mean that the early study of a foreign language can stimulate the development of the parent tongue.

6.5 In-service training

6.5.1 In-service Training for Personnel in Compulsory School

In the 1962 parliamentary decision on measures to introduce the new nine-year basic or primary school as a compulsory school for all of Sweden, two measures were singled out as being particularly urgent. Both were based on the results of the pilot scheme of experiments which ran from 1950 to 1962. The one measure was the need for an intensified development of teaching aids. The 1962 parliamentary decision also implied that monies would be set aside to operate a national centre and a number of regional centres for the development of educational aids in support of the new school.

The second measure had to do with the in-service training of teachers. It was mainly through such training that these new aids, together with the new modes of work recommended in the curricula, were intended to be put into practice. In 1962 the first steps were taken to form an in-service training organization. Sweden was divided into six further training regions, each with its own department for this purpose. Resources for in-service training were also assigned to the country's 24 counties. Each county was given a further training officer, some ten further training consultants employed on a half-time basis, and certain funds to carry on and pay for regional in-service training activity. Another significant factor was that the schools as from 1962 were given the opportunity to use one of the school year's 40 weeks for the in-service training of teachers. Insofar as such further training was organized by municipal school boards or the county further training bodies, it was incumbent upon the teachers to take one week of in-service training each year. This week-long programme, which was compulsory, concentrated on the question of how the new nine-year primary school would be realized in the local school system.

The initiatives on how to conduct this in-service training of teachers came from two sources: the local school management and the regional and central organs.

There was an enormous diversity of in-service training programmes during the 1960s, when Sweden changed over from the old

to the new educational system. Space does not permit mentioning more than two of these programmes. The one signified that all of Sweden's primary school teachers and mathematics teachers in secondary school were informed about the so-called new mathematics during the years 1967-1970. Two vehicles were used to convey this information: first, the five study days per year mentioned above; and second, a series of weekend courses or holiday courses. Use was made of centrally produced teaching aids publications giving information about the new mathematics.

Unfortunately, this information, which was so grandly and broadly, indeed nationally, conceived, could not be passed on in specified training programmes about the new mathematics. However, such programmes were operated in varying degree in individual schools and municipalities.

Another further training programme was meant to let primary-school teachers assume responsibility for the teaching of English. This project, known as JET (Junior English Teaching), ran from 1968 to 1972. It absorbed a comparatively large proportion of the state funds set aside for the in-service training of teachers.

English was introduced as a compulsory subject in primary school as from 1962. By that time the majority of teachers in the class teacher stage had acquired, either from their formal education or from their enrolment in in-service training programmes, the competence to teach English in primary school. However, a great many teachers, about 12,000, had not been able to acquire this competence through their own efforts. Through efforts made by the central educational authority (SÖ) and its subordinate regional further training bodies, as well as a number of municipalities, a great many in-service training courses were arranged in English teaching. To take part in such training the individual primary teacher was given leave of absence from his or her classroom duties. The broadcasting media, radio and television, mounted special courses in English, for which special extension course material was also produced. A special testing procedure was organized through SÖ. By the end of the in-service training period, all but about 2,000 teachers had acquired the competence that these courses were meant to provide.

Further training efforts of this kind were usual during the reform activity of the 1960s. Sometimes, on the strength of agreements reached between the teachers' unions and the central educational authorities, they have taken on the character of so-called educational supplementation, i.e. a programme of necessary training for duty in the new school that can be taken on paid worktime.

Personnel training within the school area (i.e. the sphere of activity covered by SÖ) now contains two ingredients which form integral parts of a rolling reform activity. The one is staff team further training for the primary school; the other is school manager training.

The purpose of staff-team further training is to create better opportunities for a development of the school's combined activity within its own headmaster's area (the basic unit in Sweden is since 1962 not the school but the "headmasters' area" which may comprise one big school or several small schools). After completing the course the participants are supposed to work together with all persons concerned within the headmaster's area towards this end. The course runs for ten days during the term period. This further training is marked by a democratic *modus operandi* in teamwork form, where each and everyone gets the chance to develop his or her own and others' knowledge, experiences, attitudes and values.

The teams are composed of the following personnel within a headmaster's area: school managers, teachers of different categories, student welfare personnel (e.g. either a school physician, school nurse, school psychologist, welfare officer, study and vocational guidance officer or the like), pre-school personnel, municipally employed recreational personnel and other personnel within the headmaster's area (e.g. either school-lunch personnel, caretaker, building custodian or administrative personnel). The training runs for ten days, which is spread across an academic year in three periods of five, three and two days. It will take ten years to implement staff-team training in all of Sweden's headmaster areas.

School manager training is to be carried out between 1976 and 1985. All school managers in each municipality attend the basic course at the same time. School manager training is not executive development of the traditional type. The basic programme takes two years to complete and consists of three parts: course periods, home periods and community-oriented practice. The course periods encompass 25 days spread out over two years and are laid out in shorter periods of two to four days. The most important part of the home-period work calls upon the school manager to make his own efforts to analyze those ideas which crop up in the course. Since all school managers in the municipality take part at the same time, a part of the homework can be done together with the colleagues. In connection with basic training the school managers are supposed to perform so-called community-oriented practice, which covers two fourteen-day periods, the one fortnight dedicated to a typically local activity, the other fortnight to branches of the municipal activities for children and young people. Basic training is followed by recurrent training in various forms.

6.5.2 In-service Training for Academic Staff

The 1960s saw a growing concern about the undergraduate situation, particularly in the faculties of arts and sciences. An unacceptable drop-out rate was reported, and the students complained about the lack of teaching competence on the part of their tutors. Many voices were raised in favour of giving also members of the faculties some kind of teacher training - as in most countries they were given tenure and promotion on their research records rather than on grounds of good teaching.

In response to questions asked in Parliament, one of the first measures taken by the new central governmental agency for the universities (UKA) was the appointment of a Commission of Experts to review the issue of in-service training of academic teachers. This commission which started its work in April 1964 was soon succeeded by a second commission with a broader frame of reference, the Commission on Teaching Methods in the Universities which spent five years on a thorough review of academic teaching, during which time the Commission also initiated a series of experiments on teaching and learning. From 1966 it had public funds at its disposal for such experiments.

At the suggestion of the Commission positions as "educational consultants" were established at every university in 1969. Apart from being a specialist in education at the disposal of departments with educational problems, the educational consultants were in charge of the in-service training of teachers. Thus from 1969 onwards, each university has had the mechanisms and funds for a more systematic training of academic teachers.

In 1970 a supplementary staff training unit was organized as one part of the Research and Educational Development Division of the UKA, and from 1972 staff training and development activities have been offered both by the individual universities and by the central university authorities. However, in contrast to what was the case within the primary and secondary school, the university in-service training programmes have, from the very beginning, comprised all kinds of staff-teaching as well as non-teaching.

The first national efforts were directed towards staff which combined teaching and administrative functions, primarily the directors of studies who were in charge of the undergraduate programmes. A ten-week training programme stretching over three semesters was launched in 1972; during the first two semesters the participants concentrated on teaching and learning problems with the motto "look after your department" in a six week course divided into three boarding periods and one period working at the departments relieved of their

normal duties. This was followed by an administrative course of four weeks the following semester. An important feature of the programme was its interdisciplinary nature; persons from all faculties met and discussed educational and managerial problems.

It is quite clear that the comprehensive staff training approach opened new perspectives. It was not only possible to organize joint training activities for several categories of staff, e.g. the course for departmental boards (cf below), but it was also possible to promote interest in educational development with staff members who - although they do not teach - undeniably play an important role in the life of a university department, e.g. administrators, study counsellors and department secretaries.

Since 1972 national courses have been provided for a great variety of staff. Administrators and supervisors have not only been trained in administration but also as tutors and instructors; study counsellors have discussed educational theory as well as the theory of guidance and information. Engineers and technicians have studied both technical subjects and the principles of middle management; personnel officers have been trained in staff development as well as in negotiation techniques.

Perhaps one of the more interesting courses has been the departmental board course. Five departments from five different universities make up one course, and each department is required to send the head of the department, the director of studies, a study counsellor or a junior lecturer, one secretary, one technician and one student, i.e. six people with varying functions and responsibilities from each department. They mix with a course staff which includes senior administrative officers from one or two universities and the central university administration, and people representing the general public. The main core of the course consists of running a mini-university where the participants make up all the governing bodies of the university and have to solve such problems as universities encounter, from students discontent with bad teaching to the recruitment of staff and next year's budget. At regular intervals the proceedings of the mini-university are stopped to see if the analyses made and the decisions taken are reasonable.

The national courses should be seen as a supplement to the diversified staff training activities offered by the individual university or college. From a modest start under the auspices of the Commission on Teaching Methods in the Universities in the late 1960s, local staff training now extends over a wide variety of topics. As is only natural the organizational pattern differs. Some institutions of higher learning have maintained the division between an educational development

unit responsible for teacher training and one unit responsible for the training of other categories of staff. Other universities and colleges have created special staff development sections.

6.6 The Rolling Reform

A statement sometimes made in the field of comparative education is that Sweden has a "rolling reform". Indeed, the "rolling" aspect has been singled out as the core of the Swedish reform strategy. This is an appropriate place to make somewhat more detailed comments on the concept, "rolling reform".

The basic theme of the concept is that a new educational system, one that is adapted to our modern era, must have mechanisms for self-renewal built into it. Once this has been decided and introduced, the educational system shall not only live on through its structure and function but also be developed and renewed to adapt to changing conditions.

The fundamental idea is ambitious and optimistic. A charge always implies that one takes a stand between different value judgments, that one orders the priority of different measures, that one adds new knowledge of how problems can be solved.

To assert that this ambition and optimism are the distinguishing marks of Swedish reform activity is not altogether true. In point of fact the buzzwords first used during the 1950s and 1960s were not "rolling reform" but "rolling curriculum development". This means that, subject to the constraints imposed by political decisions on the outer organization of the educational system, one wants to achieve an inner self-renewal. Indeed, some part of that aim has been accomplished. R & D within SÖ, UHÄ, regional and local bodies has provided some basis for evaluation, reappraisal and priority reordering on different levels about what is worth backing for further development. However, this "rolling" activity with its information feedback and resultant changed goals, means and methods, has clearly proved to be applicable only within the already decided frames. As used here the term "frames" refers to such things as the length of compulsory school attendance, the level for organizational differentiation of pupils, the nature and extent of post-compulsory schooling, and the availability and accessibility of higher education. The changing of these frames, and with that of what is possible or impossible to accomplish as regards development, has still turned out to depend on that educational policy which has been created by state commissions with accompanying submission rounds, bill writing and political decisions. With that, too, the changing of frames has turned out soon enough to depend very much on how the centrally responsible authorities, in this case SÖ and UHÄ, act on the basis of the political decisions.

From this it follows that the "rolling reform" has become a reform within given frames. Reform in that sense always presupposes decisions of educational policy taken by the legislative and executive branches of government. With that the "rolling" aspect will be limited to the development work that is established locally and centrally. It is here that the educational R & D described above has its given place.

The most recent educational-policy decisions have notably sought to widen the frames for decision-making at the local level. This policy thrust is expected to continue. That will increase the potentials for enabling the locally and centrally pursued development work to contribute to that self-renewal which is a basic element of the concept, "rolling reforms".

We have sought to give as accurate a picture as possible of Swedish reform policy in the educational field. The analysis has been limited in the main to the compulsory comprehensive school and higher education and has concentrated on how we have fulfilled three special goals of educational policy, efforts to achieve equality, the linkage between education and society and the working world, and participation and codetermination in education.

The purpose of chapter 2 was to show that the educational system does not operate in a vacuum. Factors outside the system, e.g. population trends and the employment situation affect the educational system to a high degree. The discussion dealt mainly with how these external factors have influenced the system and to a somewhat lesser degree with what effect they may have in the future.

This concluding chapter further discusses the future outlook. Before that, however, we should like to summarise our views on evaluation of the compulsory school and higher education.

Equality

The endeavour to achieve equality has been one of the most important goals of Swedish educational policy. A number of measures were described in chapter 4.2 aimed at achieving this goal, e.g. through postponed organisational differentiation and individualisation. Common subjects for boys and girls and abolition of separate girls' schools are examples of measures aimed at promoting equality between the sexes.

The objective has been to make further study possible for everyone, regardless of social background, place of residence and sex. For this reason, upper secondary education has also been extended and integrated.

One of the most important positive results of these steps is that those receiving upper secondary education have increased sharply in number. 85-90 per cent of the 16-year-olds leaving the compulsory school each year now commence studies in the integrated upper secondary school. Another positive experience is that, as reported in earlier chapters, the international comparisons show Sweden to have the most even standard of education between different regions within the country. The differences between schools, however, can be considerable.

A degree of social levelling has occurred in the transition to theoretical and other coveted studies at the upper secondary level, in that the increase in enrolment in recent years has been primarily from the working class.

But social background continues to play the predominant role in choice of activity when compulsory schooling has been completed. Thus there is a much greater proportion of children from homes where parents have had an academic education in the most theoretical (and longer) upper secondary studies, than children from the working class. In principle, all lines of study in the upper secondary school give general eligibility for higher education. But students taking three or four year studies have the greatest freedom of choice.

With regard to the situation of boys and girls respectively, the differences lie not so much between theoretically or vocationally biased education, but rather in preferences for lines of study within the upper secondary school. The sex-role pattern can be seen as early as the senior level of the compulsory school, where choice is possible for the first time between certain different subjects and alternative courses.

Social background has also proved to be of great importance in the choice of alternative courses, children from the working class less frequently choosing the more difficult courses even though, to judge by their achievement, they would be just as capable of taking these courses as many children from other social groups.

It was stated in chapter 5 that greater equality is not to be expected in higher education than at lower educational levels. Part of the reason is that equality in higher education is dependent on equality at lower levels, but it is also dependent on the general level of research and education as well as to the occupational structure of society. Here too, however, an attempt has been made to broaden recruitment. The revised admission regulations in particular, with greater importance attached to working experience, have had this aim in view. In addition, a greater degree of planning for recurrent education may also promote the goal of equality.

A particular problem with regard to higher education is the difficulty of obtaining information about the students' social background. This gives cause for reflection on the concept of equality.

Division into social classes or socio-economic groups in Sweden has been made on the basis of the father's occupation. In higher education the relevance of judging equality among students in relation to their father's occupation can be called into question. Many students are now older and have been gainfully employed for a period before starting their studies. Is it not more important then to ask what occupation and what education they have themselves, in considering how to achieve the goal of equality?

It has been mentioned earlier that there are different interpretations of the concept of equality and that a shift can be noted in its meaning from the 1950s until now. According to the newer interpretation, equality means acquisition by all of a general and basic civic competence, with all that it implies, above all a confidence and assurance of one's own intrinsic worth and possibility of development through lifelong learning. This interpretation relates primarily to equality in compulsory education. To this must be added an endeavour to provide everyone with opportunities to acquire a basis for a profession through post-compulsory education.

Such a definition of equality means, as has already been stated, that the school must ensure all students a certain level of skills and knowledge necessary for the individual to function in society. This interpretation does not contradict the long held endeavour to make it possible for everyone to have the education and occupation desired, regardless of social background, place of residence or sex.

But such an interpretation does not mean that the goal is considered to be achieved when there is an exactly equal proportion from each social class in each form of education or in every occupation. It is fairly evident that the individual's desires are coloured by his or her social and geographical background and sex.

Furthermore, it can then be argued that the educational system must be judged according to how it makes it possible for traditionally weak groups to strengthen their position in society. It is possible and probable that change leading to greater equality in conditions of life between different social classes is brought about by measures other than education. But education is important and during the reform period of the 1950s and 1960s in Sweden, education has been seen as a part of social policy in the broad sense. The contribution of education to such a policy is to make sure that the values passed on in school correspond to desires for improved conditions of life for various groups in society. It is worth noting that improved conditions of life in Sweden and the Scandinavian countries as a whole have had, and have, less to do with social mobility in an enduring hierarchical society than with the possibilities of changing social relations at large in society.

The linkage with society and working life

How the school's links with society and the working world have developed has been described in chapter 4.3.1. The 1950s and 1960s were marked by allowing the school to assume the task of providing knowledge about society and the working world to an increasing degree. This took place primarily

through the inclusion of new items in the instruction, with this aim in view. In the 1970s, it has gradually been realised that the school cannot accomplish this task within the framework of its normal activity. Contact with society and the working world is therefore undertaken now to a growing extent by turning to the assistance of the surrounding community so that students are given the opportunity of direct contact with life at work during school time. It means, however, that the school's responsibility for these questions has really increased, even though the forms in which they are realised have been changed (cf. for instance, the responsibility of the school for a 2-year follow-up).

The reform dealing with the inner working of the school also aims at increasing such contacts as do the new forms of study and vocational orientation.

The concrete forms taken by contacts between the school and society/working world depend on local authorities and organisations. It is not possible to forecast how quickly and how well this work can be developed, nor how great the variations will be between different municipalities. At least to some extent, the measures should give students a better picture of the society outside and better prepare them for the choice of further education and work.

As has been shown, especially in chapter 5.6.3, reforms aimed at bringing education closer to the working world have been carried out in higher education as well. The vocational link, a central concept in the new higher educational reform, has different consequences for different sectors of the higher educational system depending on what link existed previously. Occupational orientation is nothing new for certain sectors, while for others it can entail courses that are of more use on the labour market. They may be broader or narrower in approach. Short-cycle technical programmes for skilled workers were mentioned as an example of education being more closely tied to the labour market.

Important for the link between higher education and the labour market is how individual courses and lines of study can be developed locally according to local employment requirements.

Participation - Decentralisation

Developments in both the compulsory school and higher education through the SIA reform and higher educational reform, mean greater decentralisation. Within the compulsory school, for instance, the new regulations governing state subsidies make it possible for the municipalities to exercise greater influence in allocating the resources themselves.

The objective has been noted in chapter 4 of allowing pupils to participate actively in matters common to the class. It has been seen, however, that the influence in planning

class work has so far been limited. In deciding on the SIA reform, Parliament strongly emphasized the importance of school work being organised in such a way that the pupils can join in and take responsibility for the daily work. This is made more specific in the proposed new compulsory school curriculum. The methods of work advocated, more closely tied to reality and more experimental, are based to a high degree on the active participation of the children in planning their instruction.

Likewise, work is in progress in expanding pupil and parent participation within each school as a whole. A proposal for establishing special committees at each school was put forward some time ago and may result in legislation being introduced by the Government in Parliament during 1979. The committees, which are intended to be consultative but with power of decision to a limited extent in questions common to the whole school, should consist of representatives of pupils, parents, teachers and other school staff, with the headmaster as chairman.

As a result of the reform of higher education, influence over educational content and other matters has in large measure been shifted from the central to the local level. The influence of regional and local bodies has gone hand in hand with a revised system of state grants.

The influence of students and employees over higher education increased as a result of growing demands for participation from the end of the 1960s and new forms of participation in department boards, faculties and university boards were tried. As pointed out earlier, this democratisation of education is not specific either to the new reform or to Sweden.

How educational content will be affected by the decentralisation to regional and local levels previously described, it is difficult to say at present. It is probable, however, that many studies will be more adjusted to the working world, for instance now that representatives of that world are taking an active part in the bodies that determine study content.

Possible Future Trends

The above summary of results achieved in the educational field in respect of the three goals constitute a point of departure for some thoughts on possible development.

There is hardly any doubt that these goals will continue to be a signpost for educational policy. It can be expected, however, that problems will be encountered in developing goals and methods, to the extent that measures require greater financial resources. As long as the economy developed

favourably in the 1950s and 1960s, it was easier to give priority to the needs of neglected groups as the interests and requirements of other groups could be met at the same time.

A discussion is taking place on various possibilities for planning the educational system in future. The only strategy put forward so far is recurrent education. In 1975 the Swedish Parliament adopted recurrent education as a planning strategy for the educational system.

In the Swedish model, recurrent education is not identical with adult education, but implies that the educational system is constructed to make possible an alternation between study and work. Thereby, employment and social policy are also affected by the system.

The individual should be able to choose between further study and work after compulsory schooling. This has consequences at every level of the educational system. Conscious measures to make recurrent education possible have so far applied mainly to higher education. For some time, however, possibilities of designing a system of recurrent education at the upper secondary level, have also been under consideration. The Enquiry into Upper Secondary Education set up in 1976 has been charged with investigating how the present continuous studies could also be offered in stages. This would be of importance primarily for young persons who are not readily interested in long, continuous programmes of study.

A strategy for recurrent education does not simply mean change in organisation and content at different levels, but also changes in respect of selection systems, the geographical spread of education, educational leave and financing and study and vocational guidance.

Intimately associated with this is the question of the right to education after compulsory schooling. The school reforms have gradually moved vocational studies from the compulsory school to the next stage above. A political decision has also been taken to expand the upper secondary school in the long run so that all students can receive preparatory vocational training. This goal has not yet been realised, however. But it has been emphasized at the same time that the right to vocational training need not necessarily be used immediately after completion of compulsory schooling, or in a single block of time.

Full realisation of a strategy of recurrent education is nevertheless a long term prospect. Not least a scarcity of resources sets limits to what can be achieved in the short run. If the individual is to have a genuine choice between

further study and work in different phases of life, a well developed system of student financing is required, making very different demands on economic resources than a system constructed primarily with a view to young students.

Certain questions of principle also arise. Should everyone have the right to education beyond the compulsory level? If the answer is yes, there are awkward problems of priorities that could, for example, include demands for preference for those who started work straight after school and who now invoke their right to further study. For the foreseeable future, however, it is likely that such problems will have to be solved by weighing the many different educational requirements that are advanced and not according to any simple principle.

LES OBJECTIFS DE LA POLITIQUE D'EDUCATION EN SUEDE

Rapport sur l'école obligatoire et l'enseignement supérieur

(Note du Secrétariat)

L'examen de la politique d'éducation en Suède a eu lieu le 13 novembre 1979, au cours de la 22ème session du Comité de l'Education.

On trouvera ci-joint un résumé en français des conclusions du rapport de base préparé par les autorités suédoises en vue de cet examen.

RESUME ET CONCLUSIONS

Le présent rapport vise à donner une image aussi précise que possible de la politique de réforme de l'enseignement en Suède. L'analyse qu'il contient porte essentiellement sur les secteurs de l'école obligatoire polyvalente et de l'enseignement supérieur, et examine plus particulièrement la manière dont ont été poursuivis trois buts précis de la politique de l'enseignement, à savoir la recherche de l'égalité, l'établissement d'un lien entre l'école, la société et la vie professionnelle, ainsi que la participation et la concertation dans l'enseignement.

L'objectif du chapitre 2 a été de montrer que l'enseignement ne fonctionne pas sans tenir compte du monde qui l'entoure. Au contraire, il est très fortement influencé par des facteurs externes tels que les tendances démographiques et la situation de l'emploi. Le débat a principalement porté sur la manière dont ces facteurs externes influent sur le système, et, à un degré un peu moindre, sur les conséquences qui peuvent en résulter pour l'avenir.

Dans les présentes conclusions nous examinons plus avant les perspectives d'avenir. Cependant, nous souhaiterions tout d'abord résumer nos vues en ce qui concerne l'évaluation de l'école obligatoire et de l'enseignement supérieur.

Egalité

Un des objectifs les plus importants de la politique de l'enseignement en Suède a été d'assurer l'égalité. Un certain nombre de mesures sont décrites au chapitre 4.2, visant à atteindre cet objectif, par exemple la différenciation et l'individualisation plus tardives des études. D'autres mesures favorisant l'égalité des sexes ont consisté à établir des programmes d'études communs pour garçons et filles et à abolir les écoles réservées aux filles.

Le but recherché est de rendre possible à tous la poursuite des études, indépendamment de l'origine sociale, du domicile et du sexe des élèves. C'est pour cette raison que l'enseignement secondaire du deuxième cycle offre un programme élargi et intégré.

Une des conséquences positives les plus importantes de cette série de mesures a été l'accroissement considérable du nombre des élèves à ce niveau d'études. Ainsi, entre 85 et 90 % des adolescents âgés de 16 ans qui terminent l'école obligatoire tous les ans entreprennent maintenant des études dans les établissements d'enseignement secondaire intégré du deuxième cycle. En outre, comme il est indiqué plus haut dans ce rapport, et c'est là un autre aspect positif de cette expérience, des comparaisons entre plusieurs pays ont montré que la Suède possède la plus grande homogénéité de niveau d'éducation entre les différentes régions. Cependant, les différences d'un établissement à l'autre peuvent être considérables.

Une certaine égalisation sociale s'est produite ces dernières années au niveau du deuxième cycle secondaire, qui comporte des études théoriques et d'autres filières très recherchées : en effet, l'augmentation des inscriptions a été principalement le fait de la classe ouvrière.

Cependant, l'origine sociale constitue toujours le facteur prédominant dans les choix scolaires en fin de scolarité obligatoire. Ainsi, les études secondaires du deuxième cycle les plus théoriques (et les plus longues) attirent beaucoup plus d'enfants dont les parents ont eux-mêmes reçu une instruction de niveau supérieur que d'enfants de la classe ouvrière. En principe, toutes les filières de l'école secondaire du deuxième cycle ouvrent les portes de l'enseignement supérieur, mais les élèves qui y ont suivi trois ou quatre années d'études se voient offrir le plus grand choix de possibilités.

En ce qui concerne la situation des garçons et des filles respectivement, les différences résident moins dans le choix entre des études théoriques et un enseignement de type professionnel

que dans des préférences pour certaines filières au niveau du deuxième cycle secondaire. Les différences dues au sexe apparaissent en fait déjà au niveau supérieur de l'école obligatoire, où, pour la première fois, l'élève peut choisir entre diverses matières et s'inscrire à des cours à option.

Il a été montré que l'origine sociale joue également un rôle très important dans le choix des cours offerts. Ainsi, les enfants issus de la classe ouvrière choisissent moins souvent les cours difficiles bien que, compte tenu de leurs résultats, ils seraient tout aussi capables de suivre ces cours que beaucoup d'enfants des autres classes sociales.

Le chapitre 5 indique qu'il ne faut pas s'attendre à trouver une plus grande homogénéité dans l'enseignement supérieur qu'aux niveaux inférieurs. Ceci s'explique en partie par le fait que l'égalité à ce stade dépend de celle qui existe dans les écoles primaires et secondaires, mais elle est aussi influencée par le niveau général de recherche et d'enseignement et par la structure de l'emploi de la société en question. Ici aussi, néanmoins, des efforts ont été poursuivis pour élargir l'éventail de recrutement, et c'est précisément cet objectif qu'ont visé en particulier les nouveaux règlements d'admission, en donnant une plus grande importance à l'expérience professionnelle. En outre, une planification plus poussée de l'éducation récurrente pourra contribuer à améliorer l'égalité recherchée.

Les difficultés que l'on éprouve pour obtenir des renseignements sur l'origine sociale des élèves constituent un problème à part. Cela donne matière à certaines réflexions sur la notion d'égalité.

En Suède, la répartition des élèves par classes sociales ou catégories socio-économiques s'est faite compte tenu de l'occupation du père. Dans l'enseignement supérieur, ce critère peut être remis en question, étant donné que les étudiants sont souvent plus âgés et ont déjà occupé un emploi rémunéré avant de poursuivre leurs études. Ne serait-il donc pas plus indiqué de

demander directement à ceux-ci leur occupation et leur niveau d'études, lorsqu'on envisage comment procéder pour assurer l'égalité ?

Il a été mentionné plus haut qu'il existe plusieurs interprétations du concept d'égalité, et que depuis les années 50 on voit quelque peu évoluer sa signification. Selon la nouvelle interprétation, égalité signifie que tous ont la possibilité d'acquérir les connaissances générales, les compétences de base nécessaires au citoyen avec tout ce que cela implique, mais surtout que chacun peut avec confiance développer sa propre personnalité, en particulier par un apprentissage qui se poursuivra toute la vie. Cette interprétation se réfère en premier lieu à l'égalité au niveau de l'enseignement obligatoire. A ceci, il faut ajouter les efforts entrepris afin d'offrir à tous les moyens d'acquérir les connaissances de base nécessaires dans la vie professionnelle, par l'intermédiaire d'un enseignement postérieur à la scolarité obligatoire.

Cette définition du concept d'égalité implique, comme il a été dit plus haut, que l'école doit donner à tous les élèves un certain niveau d'aptitudes et de connaissances leur permettant de trouver leur place dans la société. Cette interprétation n'est pas en contradiction avec l'effort constant déployé par l'enseignement tout entier, en vue de permettre à chacun d'obtenir la formation et l'emploi de son choix, indépendamment de son origine sociale, de son domicile ou de son sexe.

Mais cela ne signifie pas que l'on considère le but comme atteint lorsque chaque classe sociale est représentée dans des proportions identiques dans chaque forme d'enseignement ou dans chaque activité professionnelle. Il est assez évident que les aspirations d'un individu varient en fonction de son milieu social et géographique et selon qu'il s'agit d'un garçon ou d'une fille.

De plus, on peut faire valoir que l'enseignement devrait être jugé d'après la manière dont il permet aux groupes traditionnellement faibles de renforcer leur position dans la société. Il se

peut, et il est même probable, que ce sont des mesures autres que l'enseignement qui produisent les changements générateurs d'une plus grande égalité dans les conditions de vie des différentes classes sociales. Mais l'enseignement joue un rôle important et, au cours de la période de réforme des années 50 et 60, la Suède a considéré qu'il était un élément de la politique sociale au sens large, car il permettait de s'assurer que les valeurs transmises aux enfants à l'école correspondaient bien aux aspirations de plusieurs groupes de la société en ce qui concerne l'amélioration de leurs conditions de vie. Il n'est pas inutile de souligner que l'amélioration de ces conditions en Suède et dans l'ensemble de la Scandinavie a toujours été, et c'est encore le cas actuellement, moins liée à la mobilité sociale dans une société hiérarchisée durable, qu'aux possibilités de modification des rapports sociaux d'une manière générale.

Le lien avec la société et la vie active

Le chapitre 4.3.1. traite de l'évolution des rapports entre l'école et la société, et entre l'école et la vie active. Entre 1950 et 1970, l'école s'est vue autorisée à prendre la responsabilité de donner aux élèves des connaissances sur la société et la vie active, et cela dans des proportions de plus en plus grandes. Ce changement s'est surtout opéré grâce à l'introduction de certains points nouveaux dans l'enseignement. Au cours des années 70 on a progressivement admis que l'école ne peut accomplir cette tâche dans le cadre de ses activités normales. Actuellement donc on assure de plus en plus le contact avec la société grâce au concours de la communauté environnante, où les jeunes ont la possibilité de connaître la vie de travail pendant les heures normalement passées à l'école. Néanmoins cela signifie que la responsabilité de l'établissement scolaire a réellement augmenté sur ce point, même si les moyens utilisés ne sont plus les mêmes (cf., par exemple, la tâche qui incombe à l'école de suivre l'élève pendant deux ans après ses études). La réforme concernant l'organisation interne de l'école a également pour but d'augmenter ces contacts avec la société et le monde du travail, ce qui est

aussi le cas des nouvelles formes d'étude et d'orientation professionnelle.

La manière dont ces efforts se concrétisent dépend des autorités et des organismes locaux. Il est d'ailleurs impossible de prévoir quand ce projet sera au point, comment il fonctionnera et quelle sera l'ampleur des variations entre les différentes municipalités. Dans une certaine mesure, ces dispositions devraient au moins donner aux élèves une image plus fidèle de la société en-dehors de l'école et mieux les préparer pour le choix des études ultérieures et d'une activité professionnelle.

Ainsi qu'il a déjà été dit, en particulier au chapitre 5.6.3., l'enseignement supérieur a également subi des réformes visant à rapprocher le monde des études et le monde du travail. Le lien avec la vie professionnelle, notion clé de la nouvelle réforme de l'enseignement supérieur, est assuré différemment dans les divers secteurs, compte tenu des rapports déjà existants. Pour certains de ces secteurs, l'orientation professionnelle n'a rien de nouveau, alors que pour d'autres, elle peut donner lieu à des études qui auront un intérêt plus direct pour la vie active. L'approche adoptée peut être plus ou moins large. Les programmes techniques de courte durée pour ouvriers qualifiés ont été mentionnés comme un exemple d'enseignement plus étroitement lié au marché du travail. Ce qui est important à cet égard, c'est de savoir comment au mieux mettre au point chaque cours ou filière d'étude pour les adapter à la situation locale du marché du travail.

Participation - Décentralisation

La réforme élaborée par la Commission SIA pour l'école obligatoire ainsi que la réforme de l'enseignement supérieur ont entraîné une évolution vers une plus grande décentralisation. Ainsi, en ce qui concerne l'école obligatoire, les nouveaux règlements régissant les subventions de l'Etat accordent aux municipalités une plus grande influence dans la répartition des ressources.

Le chapitre 4 traite du projet selon lequel les élèves seraient autorisés à participer activement à des questions intéressant l'ensemble de la classe. Cependant, il s'est avéré que leur influence dans la planification du travail de classe a été jusqu'à présent limitée. Lorsque le Parlement a arrêté sa décision sur la réforme de la Commission SIA, il a fortement souligné combien il est important que le travail scolaire soit organisé de manière à permettre aux élèves de prendre part à son élaboration et d'assumer certaines responsabilités vis-à-vis du travail quotidien. Ceci est spécifié plus en détail dans le nouveau programme proposé pour l'école obligatoire. Les méthodes de travail préconisées, qui sont intimement liées à la réalité et plus expérimentales, se fondent en grande partie sur la participation active des enfants à la planification de leur instruction.

De la même manière, des travaux sont en cours pour accroître la participation de l'élève et de ses parents dans chaque établissement scolaire. Il y a quelque temps on a proposé de créer des comités spéciaux dans chaque école, et il se pourrait que le gouvernement dépose un projet de loi dans ce sens en 1979. Ces comités comprendraient des représentants des élèves, des parents, des professeurs et des autres membres du personnel, et seraient dirigés par le chef d'établissement. Ils auraient une fonction consultative mais disposeraient d'un certain pouvoir de décision pour les questions concernant l'ensemble de l'établissement.

Quant à la réforme de l'enseignement supérieur, elle a entraîné une baisse assez sensible de l'influence du pouvoir central sur le contenu des programmes scolaires et autres sujets, au profit des autorités locales et régionales. Ce transfert est allé de pair avec une révision du système de subventions de l'Etat.

Depuis la fin des années 60, les étudiants et le personnel n'ont cessé de réclamer un accroissement du droit de participation dans l'enseignement supérieur et ils ont eu gain de cause car de nouvelles formes de participation dans les conseils de département, de faculté et d'université ont été mises à l'essai. Comme il a

déjà été dit, cette démocratisation de l'éducation n'est ni le fruit spécifique de la nouvelle réforme, ni particulier à la Suède.

A l'heure actuelle, il est difficile de dire jusqu'à quel point cette décentralisation du pouvoir se reflétera dans le contenu de l'enseignement. Toutefois, il est probable que de nombreux programmes d'études seront mieux adaptés au monde du travail, d'autant plus que celui-ci est maintenant représenté dans les organismes qui déterminent ces programmes.

Orientations possibles de la politique de l'enseignement dans l'avenir

Ce résumé des résultats obtenus dans le domaine de l'éducation en ce qui concerne les trois objectifs qui avaient été fixés constitue le point de départ d'un certain nombre de réflexions sur les tendances possibles à l'avenir.

Il ne fait pratiquement aucun doute que ces objectifs continueront à guider l'évolution de l'enseignement. Cependant, il faudra s'attendre à l'apparition de certains problèmes lors de l'élaboration des buts et des méthodes, dans la mesure où ces dispositions exigeront de plus grandes ressources financières. Tant que l'économie du pays se développait favorablement entre 1950 et 1970, il était facile de considérer en premier lieu les besoins des groupes qui avaient jusque-là été laissés de côté, puisque cela n'empêchait pas que l'on réponde simultanément aux intérêts et aux exigences des autres groupes sociaux.

Actuellement, les diverses possibilités de planification de l'enseignement font l'objet d'un examen approfondi. La seule solution avancée jusqu'à présent consiste en l'éducation récurrente, que le Parlement suédois a adoptée en 1975 en tant que stratégie pour l'organisation de l'enseignement.

En Suède, l'éducation récurrente ne doit pas être confondue avec l'éducation des adultes. Ce qu'elle implique, c'est que l'enseignement doit fonctionner de manière à permettre aux élèves

de faire alterner études et travail. Elle a donc aussi une incidence au niveau de la politique de l'emploi et de la politique sociale.

L'élève sortant de l'école obligatoire devrait pouvoir choisir entre poursuivre ses études et travailler, et cette possibilité de choix se répercute à tous les niveaux de l'enseignement. Jusqu'à présent les mesures visant expressément à rendre possible l'éducation récurrente se sont principalement appliquées à l'enseignement supérieur. Néanmoins, depuis un certain temps on envisage de mettre au point un système adapté à l'enseignement secondaire du deuxième cycle. Le Comité de recherche pour l'enseignement secondaire du deuxième cycle, constitué en 1976, est chargé d'étudier les possibilités de dispenser en plusieurs phases un enseignement qui est actuellement assuré de façon continue. Ceci attirerait surtout les jeunes que les programmes longs et continus effraient un peu.

La mise au point de l'éducation récurrente n'implique pas seulement des changements dans l'organisation et le programme des différents niveaux, mais aussi certaines modifications en ce qui concerne le système de sélection, la distribution géographique des établissements d'enseignement, les congés de formation, le financement des études, l'orientation scolaire et professionnelle.

Ici se pose inévitablement la question du droit aux études après l'école obligatoire. Les réformes de l'enseignement ont progressivement fait passer les études professionnelles de l'école obligatoire au niveau immédiatement supérieur. Les pouvoirs publics ont également décidé de développer à long terme l'enseignement secondaire du deuxième cycle afin que tous les élèves puissent y recevoir une formation les préparant à la vie professionnelle. Ce but n'a pas encore été atteint. Cependant, il a été souligné qu'il n'est pas nécessaire d'user de ce droit à la formation professionnelle immédiatement à la sortie de l'école obligatoire, ni même en une seule fois.

La réalisation totale de l'éducation récurrente reste néanmoins un projet à long terme. Et l'un des facteurs, et non des moindres, qui limitent les résultats possibles à court terme est la pénurie de ressources. Si chaque individu doit pouvoir choisir réellement entre des études complémentaires et le travail à différents moments de sa vie, la société dans laquelle il vit doit disposer d'un système très élaboré de financement des études, ce qui exercerait sur les ressources économiques des contraintes très différentes de celles qu'imposerait un système destiné en premier lieu aux jeunes.

Ceci soulève aussi quelques questions de principe. Tout citoyen devrait-il avoir le droit d'étudier au-delà de l'école obligatoire ? Si la réponse est oui, des problèmes très embarrassants de priorités pourraient se présenter. Par exemple, ceux qui ont commencé à travailler dès la fin de la scolarité obligatoire pourraient donc invoquer leur droit aux études et revendiquer la priorité. Cependant, pour l'avenir prévisible, il faudra probablement résoudre ces problèmes en tenant compte de toutes les exigences différentes en matière d'éducation, et non point d'un principe unique quel qu'il soit.

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